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ABSTRACT

Written from a variety of perspectives, the 13 articles in this journal issue focus on the use of the computer in teaching English. Specific topics discussed in the articles are as follows: the era of the microcomputer, by R. Baird Shuman; pedagogical issues involving computers, by Duane Roen and Margaret Fleming; computer rhetoric at the University of Illinois, by Frank Hodgins; the writing outreach workshop planned for the summer of 1986, by Dennis Baron; using collaborative writing as a successful strategy for computer-assisted instruction, by Gail E. Hawisher and Gary D. Schmidt; composition, revision, and word processing, by Nadene Keene; a community college program involving composition by word processing, by Rick Dollieslager; the computer and seventh graders (an anecdotal report), by Katherine Wells Knighten; the Apple Writer as a word processing program for student publications, by Daniel R. Russo; learning to love word processing, by Donna-Marie Stupple; plunging into word processing (a teacher's experience) by Carolyn Boiarsky; managing with only one computer in a classroom, by Phyllis Mabry; and a sample proposal to a school board requesting funds for microcomputers, by Marti Swanson. (EL)

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FALL 1985

THE COMPUTER AND ENGLISH TEACHING

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ILLINOIS ASSOCIATION OF TEACHERS OF ENGLISH

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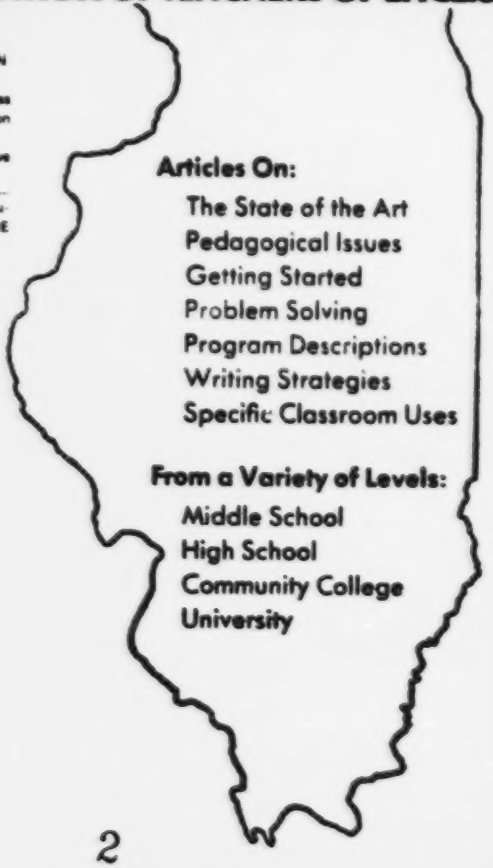

Articles On:

The State of the Art
Pedagogical Issues
Getting Started
Problem Solving
Program Descriptions
Writing Strategies
Specific Classroom Uses

From a Variety of Levels:

Middle School
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ILLINOIS ENGLISH BULLETIN

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About This Issue

The computer revolution has already affected every level of English teaching and gives promise of exciting things to come. The aim of this issue is to give both an overview, a glimpse of the computer's impact on education at large — its capabilities, limitations and classroom potential — and an up-close look at its introduction and use in specific programs.

Many of the articles describe problems involved in getting started, not the least of which is apprehension on the part of English teachers themselves. But whether there is one computer or a roomful, whether computers are used for individualized instruction or collaborative writing, these articles demonstrate that resourcefulness and a professional zest for plunging right in can bring real and tangible rewards, especially evident in student response and performance. Successful computer-assisted composition programs representing high school, community college and university levels are described in detail with valuable exercises and pointers on sequencing and class management.

The number of manuscripts submitted for this issue gives evidence that Illinois teachers are successfully meeting the challenge of discovering ways to use the new technology for the improvement of language skills. I want to thank the Board of Readers for help in selecting and revising materials for this issue. I am especially indebted to Joe Harris, Coordinator of English in the Communications Division of Parkland College, for his invaluable suggestions.

Dorothy Matthews
Editor

Computer Revolution, Phase Two*

R. Baird Shuman
Department of English
University of Illinois at Urbana-Champaign

Humankind has undergone four communications revolutions in its history, and these revolutions have more significantly affected society than the Industrial Revolution or than such political upheavals as the French Revolution or the American Revolution. Society is now in phase two of the fourth of these communications revolutions, the computer revolution. Phase two began with the development of the microcomputer.

The first communications revolution occurred when primitive people regularized the sounds they made into vocabularies and syntactic structures that were relatively fixed and that were intelligible to other members of the group. With this tentative step, *homo sapiens* gained the capability of transmitting information, both concrete and abstract, from one being to another. Whereas genetic transfer and learned behavior account for most of what is known by lower animals, who have no sense of history, human beings pass on characteristics genetically but are also able, through oral communication, to pass on information from generation to generation. Before the second communications revolution occurred, considerable history and information about folkways had been transmitted through a well developed oral tradition, much of which continued to coexist along with written history, even as it does to this day in the form of fairy tales, nursery rhymes, songs, folk dramas, epic poems, riddles, charms, limericks, and jokes.

The second communications revolution began as an art form. People reproduced images of what they saw by carving on pieces of wood or bone, by scratching on the walls of caves, and ultimately by drawing. At this point, it became possible for human beings to communicate without being physically present. Objects (nouns) and actions related to those objects (verbs) were very much a part of ancient art, and inherent in this art were the basic binary components of sentences. Depiction of color and physical characteristics became adjectival parts of ancient drawing, and modes of acting, indications of slowness or rapidity or of emotions related to actions, became adverbial elements in the art work that existed before people moved to such abstract forms of writing as cuneiform and

* This article is dedicated to the memory of Professor Paul H. Jacobs, friend and colleague, who gave always of himself.

hieroglyphics. Out of ancient art work, which provided the basic building blocks of written communication, came the first attempts to write more abstractly, as pictographic representations came to be stylized and ultimately grew into ideographic representations. Then alphabets developed, the early ones pictographic, many later ones ideographic. The ideographs of many languages, such as Hebrew, Coptic, and Chinese, are essentially pictographs, although they have through the years become stylized and have taken on abstract meanings sometimes far removed from the meanings of the original pictographs.

In 1454, Johann Gutenberg spawned the third stage of the communications revolution in the western world, when, at Mainz, he printed a Papal Indulgence using moveable type. The book, manuscript versions of which had existed much earlier, was now just two or three generations from being available to practically anyone who wished to own one. Once the technology was in place to make this remarkable advance possible, the masses had only to develop the skill of reading in order to take advantage of Gutenberg's technological breakthrough. Martin Luther's call for every man to be his own priest, to be able to read his own Bible in the vernacular, soon encouraged mass training in reading.

The fourth stage of the communications revolution began more than a century ago with the invention of the telegraph and progressed through the invention of the telephone, the radio, television, and, finally, the computer. The harnessing of electrical power, of course, made this revolution possible. Certainly all civilized people have found their lives drastically affected by each of the four communications revolutions, but the last of these revolutions has, more than any of the other three, mandated society as we know it today.

The second major phase of the fourth stage of the communications revolution is less than two decades old, and it is on this phase, the era of the microcomputer, that I will focus my attention in this paper.

Human Beings and Computers

Less than forty years ago, in 1946, the first electronic digital computer was built at a cost of some half million dollars at the University of Pennsylvania. This instrument, ENIAC, weighed 30 tons and occupied a space equivalent to that of an average-sized house. ENIAC had 18,500 vacuum tubes which required 130,000 watts of electrical power to run them.[1] ENIAC marked the begin-

ning of the computer age, even though this grandfather of computers and its early offspring had only an indirect impact on the lives of most people. These initial computers were used largely by the military and by industry. Their workings remained a mystery to the average person. Their misworkings constituted an inconvenience to those who felt that too much of their private, personal data was being stored mysteriously and intimidatingly in some unknown repository, perhaps to be used against them or to embarrass them sometime in the future.

Just as the early Babylonians and Egyptians felt threatened by writing, which was used primarily in their societies to keep records of misdemeanors or delinquent taxes, so do many modern people feel that the computer has ushered in the era of Big Brother and has marked the end of personal privacy. However, the computer is currently being demystified for many people because it has now become an integral part of their own daily lives. The microcomputer, financially within the reach of many people for home and office use, will, within less than ten years, be as common a piece of household equipment as the television set is at present.

Just as the Industrial Revolution gave humankind machines that could extend and enhance the power and uses of their bodies, so now does the microcomputer offer to the populace in general a means by which it can extend and enhance the uses and capabilities of their intellects.

The incredible fact is that the computer has, essentially, been able to simulate many elements of human consciousness. The human brain is, in many ways, still the best computer, but it has its limitations. The microcomputer also has its limitations. However, the marriage of human intelligence and the computer seems a particularly felicitous union because what man does best, computers cannot do, and what computers do superbly, humans cannot do as well.

What Computers Can and Cannot Do

The computer at present has the limitation of being unable to make certain high-level judgments, especially if such judgments are based on inference. The computer cannot deal with ambiguity. It must be programmed, and its programs can work only on the information it has available to it. It cannot pick up information subliminally, as human beings do. Computers have been programmed to compose simple stories based upon sets of facts. In one instance, a computer-composed story turned out like this:

> One day Henry Crow sat in his tree, holding a piece of cheese in his mouth, when up came Bill Fox. Bill saw the cheese and was hungry. He said, "Henry, I like your singing very much. Won't you please sing for me?" Henry, flattered by his compliment, began to sing. The cheese fell to the ground. Bill Fox saw the cheese on the ground and was very hungry. He became ill.[3]

The story works until the very end. The moral about flattery is evident and the facts are all in place. However, the final sentence reaches an incorrect conclusion because the computer was programmed to assume that "if a story character's hunger passes a certain threshold, then that character becomes ill,"[3] and the computer did not have sufficient discriminatory powers to avoid what, in this story, is an incorrect and misleading conclusion. The human mind can deal with such ambiguity in a given context. The computer usually is unable to.[4]

Human beings, on the other hand, are given to forgetfulness, and computers can store for them whole libraries of readily available accurate information which can be updated as necessary. Just as the advent of the printed word made it possible for people to depend less on their memories than people previously had, so does the computer make it virtually unnecessary for people to memorize all the detailed information they require in order to function efficiently. Microcomputers have freed the human mind from the need to store huge quantities of data and, as people come increasingly to take advantage of this newly found freedom, many will work in tandem with mircocomputers to become more creative and resourceful.

Getting a Timely Start

Computerphobia is widespread and those who would rather delay their first encounters with these threatening machines can find ample excuses to justify the delay. The field of computer technology is developing so fast that each month brings better computers, and usually at lower prices than their predecessors. Harold Shane has figured out that "if a Rolls Royce had improved as much in cost-efficiency as the microcomputer has in the last decade, it would have a sticker price of just $3." Shane goes on to note that "a 1945 all-tube computer capable of doing the work of the present-day table-top computer would have had to be the size of New York City; it would have required more power than the whole of the city's subway system."[5]

This information is interesting and true; however, dramatic improvements in computer technology will continue at an ac-

celerated pace, and finding rationales for not buying equipment is ultimately counterproductive. It probably makes sense to follow the advice of Wallace Judd, who writes, "First, get computers into your school. Don't worry about the fact that future computers will be cheaper and more powerful or about whether they will soon talk to you in English. By that time you will know a great deal more about computers if you begin learning about them today."[6] Delaying the initial step is a greater mistake than buying machines that may in time be superseded by a new generation of instruments. If no microcomputers are in place, schools cannot offer students the exposure to them that students need if they are to function effectively in contemporary American society.

Further, the younger students are when they begin to use computers, the more productive is their use of them likely to be. Just as five- or six-year old children pick up foreign languages quickly, so do they learn with incredible rapidity how to use microcomputers. Seymour Papert, a mathematician who teaches at MIT and who spent five years in Geneva studying with Piaget, has worked closely with children as they begin to work with microcomputers. The children he worked with had varying degrees of intellectual ability. Some of them were physically handicapped. Using a device called the LOGO Turtle, which he invented, Papert found that young children were capable of using the computer in sophisticated ways that helped them develop high-level reasoning skills. Noting that computers are often used to program their users, Papert expresses his vision that "the child programs the computer and, in doing so, both acquires a sense of mastery over a piece of the most modern and powerful technology and establishes an intimate contact with some of the deepest ideas from science, from mathematics, and from the art of intellectual model building."[7]

Papert contends that when they use computers easily and often, people's thought processes will be drastically altered even at times when they are not interacting with the computer. He contends that computers will help users to "form new relationships with knowledge that cut across the traditional lines separating humanities from sciences and knowledge of the self from both of these."[8] Papert's vision has brought to the world of computer education a new sense of the possible uses of this exciting technology. The computer can be used imaginatively and unimaginatively. It can be used for menial tasks and for creative ventures. It can perform routine procedures, thereby freeing students and teachers to work more creatively and imaginatively than they ever have before. The computer, the new basic machine as it comes from its packing crate,

cannot take the initiative in deciding how it will be used. The effectiveness with which it will be used depends wholly on the vision, imagination, and understanding of the people using it and on the appropriateness of the software used with it. In addressing this point, Richard S. Powers calls the computer "no more a thinking thing that a book is, but to extend the comparison, each computer lesson has the capability of being many different books, depending on how it is being used."[9]

Some Educational Uses of Computers

Margaret M. Withey lists four essential educational uses for computers:

> (1) the computer as tutor, especially in discrete skills and the student as responder to questions with "right" or "wrong" answers; (2) the computer and the student in interactive programs that require a dialogue between computer as teacher and student as active participant; (3) the computer and student in interactive programs with the computer performing tasks determined by the student as teacher or programmer; and (4) the computer as a blank page on which the student can write, revise, and edit, with the computer responding to commands but offering no advice, and no assistance beyond the specific help requested.[10]

The tasks that Withey lists are hierarchically arranged, and each is important in specific kinds of situations. Certainly it is helpful for the computer to drill students individually in something that they have trouble learning or that they have missed during an absence and that the rest of their class has already learned. The computer is equipped to give precisely the kind of individual instruction that a teacher with a class of thirty students does not have the time to give. The computer provides such instruction with clarity, infinite patience, logical and sequential development, and no unhealthy sense of competition. The transaction is a private one between the learner and the computer. Humiliation is not programmed into it.

The second level in the hierarchy involves the student in interactive dialogue with the computer. This dialogue has been programmed into the computer and students interact with the machine in their student roles. The third level of sophistication in Withey's hierarchy is one in which the computer performs as commanded according to material that students program. Although students have not been passive recipients of information in any of the stages

of this hierarchy, the student is much more active at level three than at the preceding levels. And at level four, students begin to create on their own, to work without the interactive guidance of the machine except as such guidance is requested. It is to the higher stages of creative activity that Papert finds his students ascend quite quickly. He writes that "all children will, under the right conditions, acquire a proficiency with programming that will make it one of their more advanced intellectual accomplishments."[11] Moving a step beyond Piaget, Papert, who decries our society's "relative poverty of materials from which the apparently 'more advanced' intellectual structures can be built,"[12] sees the microcomputer as providing the instrumentality that can give students the materials they need for building intellectual structures. Papert wants students to get to know an idea the way they get to know a person. He is concerned that schools emphasize "skills and facts" and claims that "students pick up an image of learning as 'learning that' and 'learning how.' "[13] Obviously, schools stress those things that they can measure with a degree of objectivity, and this emphasis places a distinct limitation upon the learning environments they create.

Schools in the Computer Age

The demise of schools as we know them could occur within the next half century. Few would deny that the technology presently exists for deschooling modern societies. Students can stay home and through microcomputer networks receive an education that is probably superior substantively to what they presently receive in most schools. Nevertheless, I agree with Ronald Palamara that "future computerized technology will never displace the shared human aspects of education — work with a peer group or with a teacher."[14] We will likely see, as Robert C. Snider of the National Education Association predicts, a considerable decline in future public school enrollments: "The public schools will be done in by what most people in the early 1980s saw as two very separate and unrelated developments: personal microcomputers for nearly everyone and tuition tax credits for parents whose children under eighteen are enrolled in private schools."[15] Snider, albeit that he is writing somewhat satirically, predicts a strenuous surge in private schools in the foreseeable future.

Joseph N. Pelton, Executive Assistant to the Director General of the International Telecommunications Satellite Organization (INTELSAT) and author of *Global Talk* (1982), predicts that in

the years immediately ahead, as budgets are severely strained, the following educational issues will come under close scrutiny: "(a) the extent and nature of public and private funding of education; (b) funding priorities, particularly education vs. training; (c) whether the 'proper' function and purpose of public schools is an organized form of child tending and a provider of socialization training; (d) whether the function of education is that of instilling facts, of creating intellectual curiosity, of providing analytical tools, of enhancing linguistic capabilities."[16] It is my guess that society, as presently constituted and more pressingly as it will likely be constituted in the next two or three decades, will have to maintain its schools, whether or not this necessity is stimulated by the best of educational motives. For one thing, the phenomenon of the working mother is so firmly entrenched in our society that schools serve a necessary social and economic function within most young families. Secondly, the need to delay the entrance of young people into the work force will increase. The job situation as we approach the year 2000 is not promising. Shane estimates that by the year 2000, or at the latest by 2006, half the jobs that people now hold will have been eliminated because of advanced technology.[17]

In another article, Shane cites the case of the General Electric Company, which is spending $316 million to modernize its locomotive plant in Erie, Pennsylvania. With the modernization, "*two* workers in the future will do in 16 *hours* at General Electric what *70* employees did in 16 *days* before the plant received its electronic facelift."[18] As a result of this, Shane concludes that in the future "one of the basic qualities of good schools will be their ability to teach skills that are transferable from one job to another in a rapidly changing world of work."[19]

This statement certainly coincides with Palamara's statement that "in today's rapidly changing society an individual should be prepared to pursue possibly as many as three or four careers. A person may well be an engineer today, a teacher tomorrow, a computer technologist the next day, and who knows what on the fourth. This flexibility could become the rule rather than the exception in the rapidly evolving computerized world."[20]

It seems safe to speculate that schools as building or groups of buildings in which people congregate to learn will continue to exist. It also seems a safe speculation that continuing education, much of it undertaken at the local level through public schools, will flourish as it never has before because people will increasingly seek additional training at all stages of life. Their economic survival will depend upon their receiving such training.

Teachers will serve different functions (and perhaps will serve more students each day) especially at the secondary level. The microcomputer will allow individual instruction to take place with little intervention from teachers, freeing them to do other work and to deal with more students.

Attitudes toward grading and testing will have to change drastically, which will be all to the good. Many current grading standards are outdated and Draconian. If the purposes of education are to impart information and knowledge and to stimulate creative, independent, and original thought, then examinations should be more than the guessing games that they often turn out to be currently. Judd tells how "in computerized adaptive testing, . . . the computer selects items for the test while the test is in progress. If a student answers the first item correctly, the next item is harder. If the student gets the first item wrong, then the next item is slightly easier."[21] Assuming that students are serious in their intention to learn (and I realize that in some situations this may be an erroneous assumption), tests should be learning tools, not swords of Damocles.

Afterword

When books first started to be readily available to the masses, many pessimists predicted that universities would no longer be able to attract students. "Why," they asked, "would a student come to hear lectures if he [university students were all male in those days] can buy the text?" Obviously the book has made the university a more vital and productive place than it was in mediaeval times and has been the underpinning of the modern university. Today we face the sort of threat from the computer that the book posed in an earlier time. Society has its ways of adapting to change and of capitalizing upon the opportunities that accompany this change. I am personally confident that our society is on the brink of one of the most exciting and challenging periods of renaissance ever recorded in its history, and that the microcomputer is the single most important component of this renaissance.

Notes

[1] Harold G. Shane. "The Silicon Age and Education," *Phi Delta Kappan*, 63 (January 1982), p. 304.

[2] John B. Black, Deanna Wilkes-Gibbs, and Raymond W. Gibbs, Jr. "What Writers Need to Know That They Don't Know They Need to Know," in Martin Nystrand, ed., *What Writers Know: The Language,*

Process, and Structure of Written Discourse (New York: Academic Press, 1982), p. 328.

[5] *What Writers Know*, p. 328.

[6] For a brilliant discussion of this problem, see Terry Winograd, "Computer Software for Working with Language," *Scientific American*, 251 (September 1984), pp. 130-145.

[7] Shane, *op. cit.*, p. 304.

[8] Wallace Judd. "A Teacher's Place in the Computer Curriculum," *Phi Delta Kappan*, 65 (October 1983), p. 121.

[9] Seymour Papert. *Mindstorms: Children, Computers, and Powerful Ideas* (New York: Basic Books, 1980), p. 5.

[10] Papert, *op. cit.*, p. 4.

[11] Richard S. Powers. "Computer Assisted Instruction in English," in R. Baird Shuman, ed., *Education in the 80's: English* (Washington: NEA, 1981), p. 109.

[12] Margaret M. Withey. "The Computer and Writing," *English Journal*, 72 (November 1983), p. 25.

[13] Papert, *op. cit.*, p. 16.

[14] Papert, *op. cit.*, p. 20.

[15] Papert, *op. cit.*, p. 136.

[16] Sandra M. Long. "The Dawning of the Computer Age: An Interview with Ronald Palamara," *Phi Delta Kappan*, 63 (January 1982), p. 313.

[17] Robert C. Snider. "Terminal Time in the Classroom," *Phi Delta Kappan*, 65 (October 1983), p. 113.

[18] Joseph N. Pelton. "Education in a Cybernetic World," *English Education*, 16 (October 1984), p. 142.

[19] Harold G. Shane. "The Silicon Age and Education," *Phi Delta Kappan*, 63 (January 1982), p. 306.

[20] Harold G. Shane. "The Silicon Age II: Living and Learning in an Information Epoch," *Phi Delta Kappan*, 65 (October 1983), p. 128. Shane's italics.

[21] Shane, "The Silicon Age II," p. 129.

[22] Long, *op. cit.*, p. 313.

[23] Judd, *op. cit.*, p. 121.

The CIA and CAI: A Dialogue on Some Pedagogical Issues

DUANE ROEN AND MARGARET FLEMING
DEPARTMENT OF ENGLISH
UNIVERSITY OF ARIZONA
TUCSON, ARIZONA

Scene: a campus coffee shop
Characters: Chip Newton and Pat Oldcastle

Chip: Say, Pat, did I ever tell you about my embarrassing experience at the four C's conference in Detroit?

Pat: No, what happened?

Chip: Well, a bunch of us went to dinner in a Greek restaurant, and while we were waiting for a table, I turned to one of the others — I knew she was doing a lot of work with computers in her classroom — and I said, "So tell me about your CIA work."

Pat: Aha! A Freudian slip.

Chip: No, merely a Chomskian performance error.

Pat: Nonsense. I think it reflects a fear you won't admit — a fear that computers are part of a giant conspiracy.

Chip: That may be your fear; it's certainly not mine.

Pat: I think it proves that George Orwell was right. Soon there'll be a telescreen in every room, and it'll be part of a nationwide computer network linked to CIA headquarters.

Chip: Impossible. Don't you know it's the FBI, not the CIA, that monitors domestic affairs?

Pat: Domestic spying, you mean. So Big Brother is the FBI then. The technocrats have infiltrated that organization and are plotting to take over the world with computers. These sci fi films like *Colossus: the Forban Project* and *Tron* weren't fiction after all.

Chip: You shouldn't let science fiction influence you so much. No analytic thinker would make statements like that without a shred of evidence to support them. I suppose next you'll be telling me that *Invasion of the Body Snatchers* isn't fiction.

Pat: Oh, yeah! You call yourself an analytic thinker, and yet you believe implicitly that computers are going to solve all the problems of education. That's what I call superstition.

Chip: I never said computers are a panacea for anything. They are merely useful tools. If everyone thought the way you do, we'd still be digging up gardens with our hands instead of spades.

Pat: I know, I know — the computer is an extension of the human mind just as the spade is an extension of the human hand.[1] The thing you computer nuts don't seem to realize is that the spade isn't as useful for picking flowers as the hand is. You want to use computers for everything.

Chip: You're distorting the analogy. The spade and the pruning shears and the computer each have specific useful applications. No tool can do all things.

Pat: Not even your beloved computer?

Chip: Of course not. Why are you so narrow-minded? Are you afraid to admit that computers can have a place in the humanities?

Scientists and business people have bought the idea — and the product — long since.

Pat: I am not narrow-minded, but as a humanist, I deal primarily with ideas, not devices. Wasn't it Matthew Arnold who said that the mass of people had to hear some cumbersome machinery clanking in order to believe in progress? — No, I think it was Thoreau.[2] It was Arnold who said we would always have a need for beauty.[3]

Chip: If you think that humanists have the corner on ideas and values, then you need to read *Science and Human Values.*

Pat: Who wrote that?

Chip: Bronowski. He explains how scientists are much like painters. Both a painter like Rembrandt and a scientist like Ernest Rutherford, for example, did the same thing: they interpreted reality (102). If I pressed you, you might even admit that poets, playwrights, and novelists do the same. The only difference that distinguishes one of these groups of interpreters of reality from the others are the tools they use. Let me add, Oldcastle, that leaders in the humanities are beginning to understand the importance of computers as tools. (ruffling through some papers) Here, listen to this. This is a statement that the Commission on the Future of the Profession offered on behalf of MLA, which you admit is a pretty conservative organization of humanists, right? (Pat nods)

> The MLA should continue to lead learned societies in exploring the new technologies. We recommend (1) that the MLA broaden its function as a clearinghouse for information and resources in all areas in which technology affects our professional and scholarly activities (e.g., through on-line research, computer-aided and distance learning, word-processing . . . ; (2) that MLA members educate themselves in the new technology and become involved in making decisions about technology at their home institutions. . . . (953)

Pat: Yes, but don't forget —

Chip: — and furthermore, institutions, like Princeton, Stanford, Syracuse, Carleton, Yale, Wellesley, have agreed that

> with computers and other products of technology now so prominent in modern life, an educated person needs to know not only about traditional areas of knowledge, the humanities, the social sciences and the natural sciences, but also about the methods, values and thought processes of engineering and applied sciences.[4]

Pat: That's just it — I'm afraid all this technology is displacing liberal education.

Chip: Not at all; technology is expanding it. (ruffling through

more papers) Listen to this from a recent Commission on the Humanities report:

> Liberal education must define scientific literacy as no less important a characteristic of the educated person than reading and writing. As an especially important part of this literacy, students must learn about new informational technologies, which affect society as significantly today as did printing centuries ago and television during the last thirty years. At present, no more than 40% of American college students graduate with some basic knowledge of how to use a computer. Computer literacy must now be considered among the goals of a liberal education by all colleges and universities. . . . (71)

Pat: You have an answer to everything, don't you? Where'd you get all those articles?

Chip: I read things other than cheap mystery novels. You should try it sometime.

Pat: Mystery novels are the contemporary equivalent of the morality play.

Chip: Of course. I always think of Mickey Spillane's *I, The Jury* right along with *Everyman.*

Pat: If you don't know the difference between *I, The Jury* and Dorothy Sayers' *The Nine Tailors,* you shouldn't say anything about mysteries.

Chip: (ruffling more papers) Never mind. Let me read you a statement from President Henry Koffler of the University of Arizona:

> Within a few years the new [information] technology will be an integral part of the work of all of our Colleges. It will provide new tools for research and scholarship, it will permit new modes of teaching, and it will dominate our methods of writings and communication, both with our colleagues and with our students. (34)

Pat: "It will dominate our methods of writing and communication"? More likely it will destroy writing altogether. I heard Van Compton say the other day that the technology is now available for voice-activated word processors.[6] It makes me shudder to think of it. If that ever becomes commonplace, we can kiss writing goodbye.

Chip: Well, that remains to be seen. The thing I find exciting about word processors right now is the way they can help students with their writing.

Pat: The way calculators help students with their math? We have a whole generation now that can't even do simple addition. I was in a store the other day when the power went out. The sales-

person couldn't total up my bill; I had to do it myself. Translate that into writing, and we'll have a whole generation that thinks it can make a series of grunts and mumbles linked with "well" and "y'know," and a polished essay will ratchet out of the printer, with punctuation mechanically inserted, spelling mechanically corrected, and readability controlled for an audience of writing instructors.

Chip: You're being melodramatic again, Oldcastle. You can't support that assertion. The computer is not going to substitute for thinking. What it can do is to free students from drudgery in order to activate their thinking. If they didn't have to worry about mechanics, they could devote all that energy to what they really want to say.

Pat: My students don't devote that much energy to mechanics, to judge from some of their papers.

Chip: You can't be sure. Remember the experiments Sondra Perl did with basic writers. She found that before students had written three or four words, they were already worried about making errors.

Pat: That's what our profession's preoccupation with editing has done to them.

Chip: I know — just think how a spelling and punctuation program could free them up and increase their fluency.

Pat: I'd certainly be in favor of anything that could do that.

Chip: Look, here are some notes on an experiment done at MIT by a man named Ken Skier. He found that students using word processors spent more time revising and revised more extensively than their counterparts who used paper and pencils. The computer made revising much easier for them because it's so easy to insert, delete, and move words — or whole blocks of text, for that matter. Writing it out by hand or typing it not only takes more time but probably discourages them from revising at all because of the time involved. Don't tell me that isn't a consideration.

Pat: No, but —

Chip: I suppose you're going to argue that unnecessary drudgery builds character. If so, why don't you carve your own pens out of goose quills?

Pat: And mix my own ink out of coal dust and tears —

Chip: Better yet, why don't you chisel your essays on stone tablets. Maybe you could quarry your own stone while you're at it.

Pat: Of course I don't advocate unnecessary work, but let's be sure that it really is unnecessary before we give it up. As for mov-

ing blocks of text — by the time you scroll back and forth to find the paragraph you want, then move your cursor to the right place, find the right keys to punch (which you've probably forgotten), and move your text, I'm not sure that you've saved more time than if you'd retyped the whole page.

Chip: Those operations aren't that difficult or time consuming. Besides that, when you retype the page, you might make new errors. Anyway, you're a fast typist: most students aren't. Another thing Skier contends is that computers must be "user-friendly."

Pat: What on earth is "user-friendly"? Ugh!

Chip: It means that the program must be designed so that humanists, such as composition students, can learn how to use it in a relatively short period of time. You're thinking of that program that was demonstrated at our last in-service. It was far too cumbersome. But I heard about some at the conference that sound much better. I'm convinced that if we could get hold of some good programs to use with our students, their writing would improve, and not only that, but their confidence in their ability to write would improve because they wouldn't have to rewrite or retype whole pages in order to revise single paragraphs, and they wouldn't have to worry about spelling —

Pat: So they'd never have to learn to spell? The computer would do it all for them?

Chip: No, the program would flag misspelled words and students would correct them. Come on, Pat, don't tell me that drilling on spelling has been such a joy to you that you can't bear to give it up. You call yourself a humanist. Wouldn't you welcome the chance to concentrate on ideas instead of mechanics?

Pat: I would enjoy that, of course, but —

Chip: I know. Something inside you rebels at giving up anything as long established as the tradition of teaching spelling. Or maybe your Puritan conscience won't let you believe that anything so painful isn't virtuous.

Pat: I don't deny that there might be a bit of that in my reaction, but think of some of our colleagues. If word processors abolish the teaching of spelling, what will become of their curricula?

Chip: Whatever happens to them will be no worse than they deserve.

Pat: Well, even if I concede that computers can help with revising and editing, that's secondary. What my students have the most trouble with is getting ideas to write on in the first place.

Chip: Ah, but computers can help with that too. Major Hugh Burns at the Air Force Academy has designed several programs to help students with that very problem — getting ideas and thinking through their topics more thoroughly.

Pat: How does that work?

Chip: Well, for instance, let's say you've been assigned to write a paper on George Orwell. You sit down at the computer and have a dialogue with it on the subject.

Pat: Shades of Frankenstein!

Chip: This is how it might go. You type in your name, and the computer says, "Hello, Pat. What is your topic?" You type in, "George Orwell," and it says, "What do you find most interesting about George Orwell?:" You say — what would you say?

Pat: Umm — He anticipated many developments in politics that we are seeing today.

Chip: OK, you type that sentence in, and the computer replies something like "That's very good, Pat. Now tell me how he anticipated many developments in politics that we are seeing today?"

Pat: That's eerie. It sounds so natural it sends shivers up and down my spine. That's exactly the way I talk with my students.

Chip: Of course. But the great advantage is that with a computer you can talk to more than one at a time. Incidentally Helen Schwartz at Oakland University in Michigan has also done some computerized invention heuristics that help students generate ideas about literature. These computer programs allow you to do what we always talk about in education — individualize and personalize instruction.

Pat: I disagree. What's personal about talking to a computer? I can see it all now — thirty students sitting with their eyes fixed on thirty computers, churning out thirty flawless essays, all neatly tailored to a pre-determined model, all handed in perfectly typed, with margins justified, pages numbered, spelling corrected — no, no, it's a nightmare! I can't stand it!

Chip: Pat, get hold of yourself! People are looking at us. You're creating your own nightmare — there's very little possibility of what you describe. This program is a heuristic to help students think, not to decide on their subjects or do their organizing. When you talk to different students, do the papers all turn out to be exact reflections of your ideas?

Pat: No, but —

Chip: The computer is just an extension of the teacher — it

allows you to reach your students more efficiently. And if you don't like existing programs, you could always modify them or write your own. Programming isn't that difficult.

Pat: Well, maybe . . .

Chip: You do see how it could help students, don't you?

Pat: Yes, I guess so. But I wonder if this computer mania isn't just a passing fad like so many we've seen. Remember when programmed texts came in — and teaching machines? They were going to revolutionize education. And then the media revolution. Film study would replace literature study in the curriculum. But none of that really stuck. Probably all this CAI is the same kind of thing.

Chip: You're forgetting that the computer is a tool rather than a method — or a message. It's like a typewriter or a Xerox machine. Is the typewriter evil because it doesn't reinforce handwriting skills? Is paper bad because students have lost the ability to chisel in stone? Was the invention of the printing press bad because lots of scribes lost their jobs?

Pat: OK, OK, I get the point.

Chip: You know, you remind me of the Luddites.

Pat: Who were they?

Chip: They rioted in the streets and smashed textile machinery in the early years of the 19th century because they thought their jobs were being threatened.

Pat: Well, they were right, of course.

Chip: Yes, they were right in assuming that machines would change their lives, but they were wrong in assuming that the change would be for the worse. The same thing is happening now. Have you read *The Third Wave*?

Pat: Yes.

Chip: Well, remember how Toffler points out that computers (the Third Wave) enhance our mind power just as the machines of the Second Wave enhanced our muscle power. And don't forget how much our society in the last century has become an information-processing society. We're doing our students a disservice if we don't help them learn how to process information —

Pat: — by using a computer —

Chip: Even political leaders see the future. Governor Bruce Babbitt of Arizona, for example, has said, (reading)

> I . . . am calling on the State Board of Education to include basic computer knowledge as a requirement for state teacher certification.

Once that happens, you can bet they'll start making all us certified teachers take in-service courses to become computer-literate too.

Pat: What you're saying is that we're stuck with it whether we like it or not. But I don't have to like it.

Chip: Look, Pat, what are you really afraid of? I know you're a good teacher, and you're usually an open-minded person. What's bugging you?

Pat: I've been thinking about that while we've been talking. I guess I feel comfortable with the old ways. I've been successful with them, and I don't want to have to learn new approaches that I won't feel comfortable with.

Chip: That's it, isn't it? Comfort. The old chairs in the library. The musty smell of old books —

Pat: Yes, yes.

Chip: But, as an educator, you know that disequilibrium has to be present in order for learning to occur. Surely you aren't resisting learning.

Pat: Of course not, but I'd rather learn what I feel I need to learn, not what the governor or the State Department of Education thinks is important. I'd like to know more about, say, contemporary poetry — or Chaucer — or another language — to help me with my teaching.

Chip: You know, I overheard one of your students the other day saying something very similar: "Why do I have to learn about literature? What I'd really like to know more about is auto mechanics."

Pat: OK, I take your point. But leaving my personal discomfort out of it, I really do fear the abuse of computers.

Chip: In what way?

Pat: It's my nightmare — the whole class sitting with their glazed eyes fixed on computer terminals in front of them, pushing buttons. Where's the interaction? How can a discussion take place? Where is there any room for ideas and opinions? My classroom is a center for human contact. I want to touch my students' humanity. How can a computer do that?

Chip: Ah, I see what your fear is. Isn't all this talk of humanity simply a cover for the ego-trip you get from having students dependent on you — you the authority, the source of knowledge, the source of power, the dispenser of wisdom? You resent giving up the limelight — isn't that it?

Pat: No, but I resent being replaced by a machine.

Chip: You and other humanists will have to retrain yourselves to use computers in the service of human values.

Pat: Is that possible?

Chip: Of course. Look, Pat, you've got to accept the computer as just another tool — it can be whatever we let it be. Sure, it can be abused, but so can other powerful tools like the automobile, the gun, the airplane, the telephone — If English teachers abuse computers, then only English teachers can be blamed for that abuse. We want CIA — I mean CAI — to be able to help our students, not hurt them.

Pat: Then we'll surely have to be as vigilant as the CIA.

Chip: Yes. By the way, on the plane coming home I sat next to a guy who was reading *The CIA and the Cult of Intelligence.*[6]

Pat: I've got an idea. Why don't you write a book called *CAI and the Cultivation of Intelligence?*

Chip: That's a good idea. Maybe I will.

Notes

[1] Don't give Pat Oldcastle too much credit, dear readers. This analogy was stolen from Adam Osborne, founder of Osborne Computers, who used it in a *60 Minutes* interview with Harry Reasoner.

[2] It was Thoreau: "The people must have some complicated machinery or other, and hear its din, to satisfy that idea of government which they have."

[3] Arnold says this many times in his essay.

[4] See Fiske.

[5] Van Compton, a colleague of Pat and Chip, might have read this in "On Horizon: Home Computers with a Gift of Gab."

[6] See Marchetti and Marks.

Works Cited

Arnold, Matthew. "Literature and Science." *Masterworks of Prose.* Ed. Thomas Parkinson. Indianapolis: Bobbs-Merrill, 1962. 309-331.

Babbitt, Bruce. "A Program for Academic Excellence." Phoenix: State of Arizona, 1982.

Bronowski, J. *Science and Human Values.* New York: Harper & Row, 1965.

Burns, Hugh and George Culp. "Stimulating Invention in English Composition through Computer-Assisted Instruction." *Educational Technology* 20 (1980): 5-10.

Commission on the Future of the Profession. "Report of the Commission of the Future of the Profession." *PMLA* 97 (1982): 940-958.

Fiske, Edward B. "Technology Gaining a Place in Liberal Arts Curriculums." *New York Times* 29 April 1984, Sec. 1, p. 1, col. 2.

Koffler, Henry. "Report from the President of the University." Minutes of the Faculty Senate of the University of Arizona. 1 Nov. 1982.
Marchetti, Victor, and John D. Marks. *The CIA and the Cult of Intelligence*. New York: Dell, 1980.
Osborne, Adam. *Interview. 60 Minutes*. CBS Television. 14 Nov. 1982.
Perl, Sondra. "The Composing Process of Unskilled College Writers." *Research in the Teaching of English* 13 (1979): 317-336.
Schwartz, Helen. "A Computer Program for Invention and Audience Feedback." Conference of College Composition and Communication Convention. San Francisco, 19 March 1982.
Skier, Ken. Telephone interview. 10 Nov. 1981.
Thoreau, Henry David. "On the Duty of Civil Disobedience." *Masterworks of Prose*. Ed. Thomas Parkinson. Indianapolis: Bobbs-Merrill, 1962. 284-308.

Computer Rhetoric at the University of Illinois

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The recent but already widespread introduction of microcomputers and word processing applications into composition programs has in effect created a new area in the teaching of writing in which we are all experimenters. With suitable caution the best books on the subject treat most of the evidence as still provisional and carefully point out that many observed results are as yet neither confirmed nor explained by research. But even more than firm research results, we may at this point need an exchange of information about the courses and classroom practices we have developed as we try to teach writing in this new way. The somewhat ephemeral newsletters that appear from time to time seem to be concerned primarily with facilities — with writing lab hours and rules, the number and types of machines available to students, the software in use. Yet the inquiries I receive from other schools indicate that using microcomputers in composition courses means different things from one place to another and that we all have a keen interest in what is being done elsewhere. What follows is a description of the computer rhetoric program, still less than a year old, at the Urbana campus of the University of Illinois. I hope it will encourage instructors in other programs to share their experience with us.

Our program is directly related to a major grant of equipment and support, for Project EXCEL, which IBM made to the University in 1984. During that summer I worked with four teaching assistants, only one of whom had previous experience with computers, in developing a new course, Computer Rhetoric 108, to be available as an elective in the fall semester to incoming freshmen with ACT scores of 26 or above on the English component. We expected these students to have fewer and less severe problems with mechanics and usage than other freshman writers and therefore to profit more fully from a course which would emphasize comprehensive matters of style and organization. Announcement of the course evoked immediate interest, and six sections (of 22 students each) were quickly oversubscribed during summer enrollment for the fall semester.

In most respects we planned Computer Rhetoric 108 as a conventional freshman rhetoric course. We use a composition text, an anthology of essays, and a handbook, the latter chiefly as a reference for the students to use in correcting their errors in grammar and punctuation. We cover the standard rhetorical modes and include a research paper among the ten essays we assign, and the course has a minimum writing requirement of 30 pages — which we far exceed.

The distinction of Computer Rhetoric 108 is that it gives much greater emphasis to revising and rewriting than is ordinarily possible in freshman composition courses. Our working assumption is that few students become good writers without learning to revise their work effectively through several drafts. Yet this process is often scanted in the classroom because it takes so much time and requires so much retyping. The computer, of course, immeasurably facilitates the task of revision by allowing the student to work from a corrected hard copy back to diskette and to make major rearrangements of material and format or to correct spelling errors and restructure sentences, all with equal ease. Our course plan treated revision and rewriting not only as essential parts of the writing process but as the most important means, for students at this level, of improving writing skills. Our purpose was thereby to develop a sophisticated understanding of revision in these inexperienced writers and to make the practice of revision a constant habit in their work. With the exception of one impromptu theme and a brief process paper on the library computer system (used early in the semester to introduce these new students to the library), each essay was set up to receive either instructor or peer editing, with suggestions for development and revision, and then to go

through at least a second and usually a third draft, with all drafts to be submitted as parts of the assignment. We tried, in addition, to build revision and editing practices into every classroom exercise, whether we were working on introductions to research papers or the strategies for descriptive writing.

In part because of this emphasis and in part because we could not anticipate the time required to teach the word processing program, we decided from the first not to use, at least for this initial year, any computer assisted instruction applications such as style analyzers, grammar checkers, or outlining aids. (We did, the second semester, install a spelling checker on the hard disks of the machines in the laboratory, where the students ordinarily printed out their work.) During that planning summer, two new computer rooms, each with 24 student and one instructor work stations, were constructed in our building. One room would serve as a classroom, the other as a monitored laboratory where the students would write and revise their out-of-class assignments.

Our computers are all IBM PC XTs. Having uniform equipment and only one disk operating system to deal with was an obvious advantage in teaching the students the few DOS commands they would need. We of course were able to store the word processing application, along with much other material, on the hard disk of the XT, making it easy to have the students call up an exercise and to work on it at any appropriate point in the class hour. Because we did not then have networking, we installed 12-inch monitors, which were cabled to the instructor's computer, within each pair of student workstations. The instructor could use these to put out material for the students to edit or rewrite, either collecting their diskettes at the end of the hour of having them print out their work.

Despite all our planning we had ample opportunity during our first semester to recognize our errors and oversights. The course plan for Computer Rhetoric 108 has remained much the same, and we remain convinced of its validity; but we have changed many of our classroom practices.

In order to spend less time teaching the word processing program, we wrote a lab manual for use during the second semester. Beginning with stern admonitions about the care and handling of diskettes, the early lessons in the manual use the word processing commands as parts of the first writing assignments, all of this as homework to be done in the lab. In this way we are able to reduce the time necessary for teaching the word processing program to an introductory session lasting less than a class hour, and the students are comfortable writing at the computer much more quickly. Once

the commands are mastered, later lessons in the lab manual (there are ten in all, assigned through the semester) are exercises in development or organization that are related to the current writing assignment. We review these lessons on the students' diskettes periodically and finally collect them in hard copy. Many small but important housekeeping practices — for instance, the habit of backing up all important files on a second diskette — can be established through lab exercises. I strongly recommend the development of such a manual to others, or at least of exercises to teach the commands of the word processing program in conjunction with actual writing assignments.

We learned also during the first semester that we needed better management of the hard disks. Useful though they are as storage bins, they are unpredictably vulnerable to the errors of novice users, and precautions should be taken. Again and again, especially in the rush of the last minutes of class, students would forget the proper procedure and would save their work to the hard disk rather than their own diskettes; and we typically discovered this only in the next class, when a student tried to use those scrambled files. To avoid wasting students' time — and one's own in deleting damaged files and reinstalling correct ones — class material should be installed on the hard disk in "read-only" form, so that the student can call up the exercise on his monitor but cannot write to the hard disk.

Some other changes have been made possible by adding new hardware or software. We were aware from the first of how useful a classroom network of the computers would be for teaching composition. The small monitors that I mentioned made some kinds of communication possible but not others. We are just now, in late summer, installing IBM's PC Network and learning what its capabilities are and how they may affect our instruction plans for the new school year. In addition to improving our ability to exchange information, the network should improve our management of files. The large capacity of the instructor's computer (now an IBM AT, to support the network) will allow us to store both the word processing applications and our teaching materials in read-only form on the hard disk, protecting their integrity; students will be able to access these files from their own machines but not to write on them.

The network should also solve a problem we have had with our printing routine. Although the dot matrix printers we have been using produce acceptable copy, six or eight of them working at once make the room distractingly noisy, and they are slow enough to

produce a traffic jam if many students want to print their work at the end of an hour. The network will serve a single, very fast and very quiet laser jet printer and will automatically queue the students' work when they type in the print command.

Beyond these changes in equipment, we are expanding our course offerings in computer rhetoric. We have added additional sections of Rhetoric 108 each semester but still fall short of the demand. New courses, serving different groups of students, will also be offered as we begin our second year. In cooperation with University High School we will team-teach an experimental computer rhetoric course for high school seniors. From within our own department we will offer two sections of a Business and Technical Writing course and one section of a basic rhetoric course in our Educational Opportunities Program, for students preparing for the standard freshman course. Over the summer we have worked on developing two advanced computer rhetoric courses, and we hope to offer at least one of these the second semester.

Although we expect eventually to make use of some CAI applications in the teaching of writing, we have approached this matter very cautiously. Over the past semester we have worked with a graduate student in computer science in doing some preliminary programming for the kind of text analysis that might help our students avoid errors and improve their writing. This work will continue, and we continue as well to look at commercially available programs, but we are still far from deciding that such applications would be of real help to students who do not have severe problems with mechanics.

Evaluation of what we have done up to this point remains a problem. The students' own course evaluations, whatever their complaints about the heavy workload or individual assignments, indicate a nearly unanimous enthusiasm for writing with the computer, always praising the ease with which one can revise and instantly see clean copy. From the first we have had them keep a Daybook file in which they record their experiences with the computer as they write and revise and rewrite each essay. Predictably, the first two or three entries show a good deal of frustration about forgetting to save their work at the end of a writing session or, in the more extreme instances, losing an entire file. But this frustration soon disappears, and the later entries express far more pleasure than pain. What has remained troublesome to the students — a problem we have not resolved — is that our lab closes at five each weekday and is not open on weekends. We do not have staff for additional hours, and we do have grave concerns about security.

There are open computer sites about the campus that have extended hours, but the students often do not find it convenient to work at one of them. More computers are being placed each semester at small sites in dormitories, and that may help the situation.

None of this proves that computer rhetoric is a more effective way of teaching freshman composition. We had a group of outside readers evaluate sample essays for the extent and quality of the revisions the writers had made through the various drafts, and their report indicated that these students had revised their work both more substantially and more effectively than other freshman writers. In a much more thorough investigation, a doctoral candidate in the College of Education is presently doing a study of what our computer rhetoric students actually do when they revise their work — from changes of words to the restructuring of sentences and the reordering of paragraphs — and the differences that these changes make in the finished essay, but her study is not yet complete. As I said at the beginning, we are all still experimenters in this new field.

Writing, Language, and the Computer

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The University of Illinois Department of English announces the Writing Outreach Workshop for the Summer of 1986. This four week program, carrying a stipend and graduate credit, offers the state's high school English teachers an opportunity to participate in three seminars in areas of critical concern: writing improvement, the nature of standard English, and the application of computers in the writing classroom.

1. Computer Rhetoric. The personal computer offers the chance to turn the high school English classroom into an efficient writing workshop in which the writer has direct contact with both instructor and peer editors, and writing evaluation and revision may be done almost instantly. In this seminar, conducted in a fully networked computer classroom, participants will learn a simple but powerful word processing program. They will then turn their attention to developing a syllabus for teaching computer rhetoric, and writing by revision, to high school seniors. We will capitalize on the ease with which the computer permits writers to move about

in their work, deleting, shifting, or inserting words or large blocks of text while always seeing clean copy, in order to develop a more sophisticated understanding of how student writers edit their work, and to make the practice of revision an essential habit in their work.

2. Writing and Standard English. English teachers are expected to be experts on the use of language, yet our training emphasizes literature and pedagogy rather than linguistics. This lack of preparation can be frustrating, since we are expected to enforce standards of speech and writing in our students and in the community at large. In this seminar we will trace the development of language standards and ideas of correctness in English, as well as the history of writing instruction. We will see that history does indeed repeat itself, that language crises are repeatedly proclaimed, that schools are continually blamed for inadequate instruction in writing. Studying the background to our continual "war of words" will give the participant English teachers a new perspective on linguistic variation and change, and they themselves will become better-informed judges of linguistic correctness. They will gain new insight into the speech and writing of their students, and in turn they will be able to teach their students to be more effective users of language.

3. Writing and Thinking. Rounding out the program, this seminar will draw on the combined expertise of the participants to critique the popular classical and modern theories of writing instruction, and their adaptation to the secondary school curriculum. We will test writing as imitation, as process, as problem solving, as learning, discovering, and making meaning, to determine the effectiveness of such approaches for advanced, ordinary, and basic writers in a variety of traditional and nontraditional classroom settings.

For more information about this program, contact Dennis Baron, Director of Rhetoric, Department of English, University of Illinois, 608 South Wright St., Urbana, IL 61801.

Collaborative Writing: A Successful Strategy for Computer-assisted Instruction

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During the past year at the University of Illinois, we have taught our Rhetoric 108 classes in a classroom-laboratory setting on IBM-XT computers. Although our first days were fraught with all the anxieties that come from trying to make the new technology work as learning tools for the students and as teaching tools for ourselves, we succeeded. By the end of the first semester, students and instructors alike were convinced that word processing helped us with both our writing and our teaching. And, as instructors, we were surprised by our resourcefulness in using the computer as a tool to help the students in all phases of the writing process.

Some of the ideas that grew out of our teaching with the computer are presented on the following pages, but they represent only a few. For other teaching strategies we devised, please write either Gail Hawisher at the University of Illinois or Gary Schmidt at Calvin College in Michigan. We've included our addresses at the end of the article.

One of the greatest strengths of the computer and word processing is their ability to facilitate communication between two writers. Collaborative writing is an activity in which almost all students have participated, for in moving back and forth through the writing process, the student often collaborates with the instructor to produce a given piece of writing. Even if the interaction is limited to the instructor's final comments on the final draft, there is still an element of collaboration: the instructor's suggested revisions conjure up a purer, ideal draft which, though it may never be written, is nevertheless the result of the interaction of two writers. Aided by word processing, we tried to shift that collaboration from instructor-student to student-student interaction.

ADAPTING THE CONVENTIONAL

The exercises we've included under this heading are teaching strategies we first used in our classes before we taught with word

processing. In modifying them for the computer, we found that the students approached the tasks with more enthusiasm, completed the exercises more rapidly, and used the screen as the focal point for discussing their writing with one another.

Generating Details

Often details for one kind of writing are appropriate for another kind of writing if they are arranged differently. By having students brainstorm on computers for an essay of personal description, then moving one computer to their right to develop their classmate's details into narrative, we can begin a "writing chain," which extends through a number of students and a number of different expository modes.

Exercise

Brainstorm for six to seven minutes on a topic for personal writing, save the material on your disk and move to the terminal on your right. Develop the details you see on the screen into a narrative, then block it and send it to a new file called narrativ.doc. Move to the next computer and arrange the details into a cause and effect paragraph; block it and send it to cause.doc. Finally, move to the next computer and write an introduction for a comparison/contrast paper; block it and send it to compare.doc.

At the end of the exercise, students will have four files, including their original file. The students then print out each of the files and move into groups to discuss the choices of selection and arrangement. The instructor should keep time, allowing no more than ten minutes per sitting. If the class is meeting for an hour and a half, students can print out in class — if meeting only for an hour, the print-out can be assigned overnight. What follows are the original details and paragraphs of narrative and cause and effect produced from an exercise in which students recorded observations of a nearby cemetery.

Original Details:

Warm tombstones, many chipped
Runners in brand new suits and sneakers
Small branches and dead leaves along the path
Birds singing
Slight breeze
Many patches of brown grass
Squirrels picking up seeds

Dogs barking and playing
Sound of traffic in the distance, squealing brakes
Sound of a swing across the street
Damp, moldy smell
Budding flowers, pushing through undergrowth

Narrative:

On the first warm day of spring, I took my long walk through the cemetery on the edge of the university campus. Joggers dressed in brand new outfits ran by me, slightly out of breath after a long winter of inactivity, kicking at the winter's debris that lay across the path. They made me feel as if I should get some exercise too, so I started to run, but it was hard in my sandals. I decided to lean against one of the stones, already warmed by the sun, listen to the birds and watch the flowers waving slowly in the breeze.

Cause/Effect:

Spring brought life to all it touched with its fresh breeze. It blew into the old cemetery, swirling around the tombstones and blowing away the winter's debris. Everything responded to it: the birds sang as they built their nests, the flowers opened their buds, and runners, newly emerged from their winter's hibernation, ran by in bright sweatsuits. Two dog owners wrestled with their respective retrievers, and the sound of a squeaky swing came from the park across the street.

Despite some of the overused images, the paragraphs are interesting for their arrangement of details. Each paragraph attracts only those details appropriate to the developmental mode. One student's details are thus used as the basis for four or five paragraphs written by other students. The resulting collection, valuable in itself as a means of teaching paragraph development, might become the basis for a paper using two or more of the modes.

Writing Sentences

By having students imitate professional writers' sentences, the instructor can invite them to experiment with different kinds of structures and various schemes within their own writing. This method can teach cumulative (loose) and periodic sentences, as well as antithesis, the effect of a long series, and other figures of speech. The exercise seems to work best when only one sentence is modeled during part of a class, but an entire class period could be devoted

to several sentences as in the exercise described below. It is important that the instructor write sentences along with the class.

Exercise:

Listed below are three possible sentences you can model, using your own subject matter. After you have completed your imitation, exchange computers, and experiment with your classmate's sentence by copying it with the function keys and then placing participial phrases earlier, omitting parts of the sentence, changing the order of the clauses, and shifting the placement of the subject. Try your hand at turning your neighbor's cumulative structure into a periodic sentence.

a. **(Cumulative Sentence Model)**: We caught two bass, hauling them in briskly as though they were mackerel, pulling them over the side of the boat in a businesslike manner without any landing net, and stunning them with a blow on the back of the head.

E. B. White
"Once More to the Lake"

(Student Example) I started to study, running from library to library, ordering volumes from the bookstore, and writing painful notes each day of the week to let the world know I was prepared.

b. **(Cumulative Sentence Model)**: All the Christmases roll down the hill towards the Welsh-speaking sea, like a snowball growing whiter and bigger and rounder, like a cold and headlong moon bundling down the sky that was our street. . . .

Dylan Thomas
"Memories of Christmas"

(Student Example) All the school days speed toward semester's end, like race cars around a track, gaining momentum with each passing test, rushing more frantically with each completed essay.

c. **(Series Sentence Model)**: My gut reaction . . . is that men — the famous male chauvinist pigs who neglect their wives, underpay their women employees, and rule the world — are literally slaves. They're out there picking that cotton, sweating, swearing, taking lashes from the boss, working fifty hours a week to support themselves and the plantation, only

> then to come back to the house to do another twenty hours a week rinsing dishes, toting trash bags, writing checks, and acting as butlers at the parties.
>
> Herb Goldberg
> "In Harness: The Male Condition"

> **(Student Example)** My opinion is that women — the infamous housewives and mothers who watch soap operas, attend Tupperware parties, and leech off their husbands — are, in truth, nonentities. They spend their days having babies, diapering them, cleaning the house, pinching pennies, doctoring, nursing, losing their dignity for their husbands and families, only to spend their evenings preparing dinner, washing dishes, picking up after children and doting on their husbands.

Writing either individually or with a partner, students can learn new sentence structures through imitation. The quick revision afforded by the word processor encourages such modeling by allowing students to experiment freely with structure and the organization of smaller units. We have found that the power of the computer can transform this exercise into a collaborative effort by encouraging the students to use their screens as a focal point for discussion.

FORGING THE CREATIVE

The exercises under this heading tap the creative powers of the computer. Designed for either a classroom or a laboratory setting, each exercise — by encouraging different students to write and think together — suggests the power of word processing as a collaborative tool.

Choosing an Appropriate Style

One method for having students manipulate language in such a way that they alter the formality of their writing becomes easy on the computer. The procedures outlined below can be used with students working together or alone, working with their classmates' writing or with their own. The examples included here are two students' alterations to an essay one had written earlier in the semester.

Before the assignment, students discuss the characteristics of different rhetorical profiles: high, medium, and low formality. We note, for example, that very formal writing usually contains many words of Graeco-Latin origin, lots of passive diction, no contrac-

tions, and few simple sentences. The average sentence length is about sixteen words. Informal writing, on the other hand, uses many words of Anglo-Saxon origin, simple sentences, often the impersonal "you," and short sentences in short paragraphs. Medium formality is the level usually sought in academic writing. The paragraphs included below are examples of how two students modified a paragraph written earlier in the semester as part of an essay dealing with Robert Frost.

Exercise:

Block a paragraph from a paper you or your partner wrote earlier in the semester and send it to another file. Using function keys, copy the paragraph in the new file three times. After diction, sentence type and length, or point of view to craft paragraphs with different levels of formality.

Student Examples:

Medium Formality: A series of New England rural women live in the poems of Robert Frost. They are the descendants of a hardy European stock who chose to farm a land that was never meant to be farmed; they are descendants of the archetype "Yankee." Unlike their southern sisters, they were never taught that women should be placed on a pedestal and surrounded by adoring gentlemen callers. They were never taught the art of gracious living. The harsh climate and stubborn land dealt neither kindly nor gently with them. If "the God who made New Hampshire taunted the lofty land with little men," he peopled New England with women that were less sturdy than the living demanded.

High Formality: One may observe a series of rural New England women in the poems of Robert Frost. After seriously considering them, one might conclude that they are the progeny of our stalwart European forebears who turned to agriculture as a means of livelihood. However, the land they attempted to cultivate resisted their efforts. Unlike the southern American women who were ministered to by plantation servants, these women were not educated to the life of a debutante; the inclement weather and infertile soil prevented frivolity. If there existed in New England men who were not able to farm successfully, certainly one must assert that the women were similarly unable to achieve happiness on such difficult land.

Low Formality: Robert Frost was interested in writing poems about men and women in New England. None of his women were as strong as they needed to be for the land. Unlike the women in the South, they weren't brought up to be treated special. They weren't the southern magnolia types at all. Between the rotten northern weather and the poor farm land, they could hardly survive. If you say the men of New England weren't able to make it, you really have to say the same thing about the women.

Students then discuss with the class the level of formality they have created either intentionally or unintentionally, defending their choices of diction, syntax, and voice.

Collaborating on the Whole

The exercises above have all used collaborative work as a way of improving and evaluating writing. After students have become adept at such work, willing to suggest significant revisions in their peers' essays, they try collaborating from the very beginning of the writing process. Students might want to work on a single disk or simply copy the various drafts onto their own disks. In any case, word processing and the computer will facilitate the collaboration.

Exercise:

This paper will be a collaborative essay in which you and your partner analyze a particular job or profession for the kinds of writing that are required and expected for the position. Engineers, lawyers, ministers, secretaries, geologists, social workers, teachers, and administrators all have to write on the job: your task is to find out not only how frequently they write but also what they write.

You will do some research into the field's professional journals, interview a person for the particular position you've chosen, and put together an analytical and informative paper for your classmates. Keep records in separate files of all the stages and drafts you go through, including those pre-writing efforts where you are planning your attack. Each co-author should maintain at least one working file that contains the latest version of your paper.

One hint here: do not simply divide the project into halves; it would be almost impossible to maintain a consistent stance and tone. Instead, develop parts of the essay jointly, so that the effort is truly collaborative. The final draft should be one that both co-authors have extensively revised and refined.

This exercise represents the culmination of the collaborative process since it requires students to use the skills they have learned in the previous exercises to produce a polished whole. It also teaches strategies that most students will find useful in the business world, where collaborative writing is the rule rather than the exception.

While collaborative writing in the composition classroom is not a new teaching method, the medium of the computer has increased its effectiveness by changing and simplifying the process. The word processor's ability to sort papers into special files and then integrate them, to combine and shift combinations of phrases and sentences, to substitute words, and to revise on various levels lends itself to the types of revision that collaborative writing entails. The ease of copying material from one disk to another similarly encourages real collaborative effort. By harnessing the capabilities of the word processor, collaborative writing becomes an especially productive teaching method, for the computer eliminates tediousness while improving communication between two writers.

And perhaps one of the greatest benefits of collaborative writing on the word processor is that it restores much of the humanness of writing, a quality that teachers of English have guarded zealously. Instead of isolating students at a work station, the computer, when used as a collaborative tool, invites them to respond to and criticize their classmates' writing, to work jointly with one another so that the final project is a human one, created through cooperative effort. Neither the computer classroom nor the laboratory need be depersonalizing. Instead—by tapping the creative resources of our students and word processing—they become vital work places where students collaborate with one another and write and learn.

For more exercises and teaching strategies, write to:

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Composition, Revision and Word Processing

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"It is easier to make changes [on a word processor] so I don't hesitate to change my essays," said one student at the end of an advanced composition course I taught at Illinois State University this spring using Applewriter II. It was the ease of revision and editing on microcomputers that led me to teach such a course.

Research on revision indicates that it is a skill many teachers and students neglect. Nancy Sommers ["Revision Strategies of Student Writers and Experienced Adult Writers," *College Composition and Communication*, 31:4 (December 1980) 378-388] and Lester Faigley and Stephen Witte ["Analyzing Revision," *College Composition and Communication*, 32 (1981), 400-414] have written notable essays on revision. Of particular importance is the difference they note between experienced and inexperienced writers' revision processes. Students tend to make only surface changes while experienced writers make more extensive revisions — in structure, in organization, and in content. It was my hypothesis that students' aversion to revision was due largely to their distaste for the messiness and redundant copying that revision by hand entails. Although revising with pen and paper or with typewritten text is a laborious process, revision on a word processor is much easier. Thus, I surmised, using a word processor should result in increased revision activity.

EXPECTATIONS

Because I use a word processor, I was excited at the prospect of teaching a class using microcomputers — I was eager to introduce students to this great labor-saving device for both creating and revising texts. Admittedly, I also wanted to save myself some work. Reading and evaluating papers is much easier if the text is typed. By requiring all students to create text on the micros, I would be reading typed rough copies as well as typed final copies. Thus my job would be easier, too. Moreover, I felt using microcomputers would increase student interest. I expected most students to come to the microcomputer with some eagerness, for I have found stu-

dents in general to be fascinated by electronic machines, from Pacman games to laser shows. Those who aren't fascinated by electronic wizardry are often aware that computers are increasingly used in the real world and, wanting to be as marketable as possible, these students, too, are eager to "play with the computer." I was also aware, however, that some students' eagerness might be tempered with anxiety.

Because the schedule of classes identified the course as using microcomputers, some initial screening of enrolling students had been done. Nevertheless, there was a range of typing skills from students who typed slowly, looking at the keyboard to locate each letter, to students who had the skills of professional typists. I cautioned those with fewer or slower skills that, if they had any misgivings as to their ability to complete two pages of typed text for an in-class assignment, they should transfer to another, non-computer section of the course. No one did and not one student failed to meet an assignment because of typing or microcomputer problems. I myself first approached word processing with some trepidation because I'd heard the horror tales of losing text as a result of hitting the wrong key or electrical blips in the system. Some students shared these fears. I tried to alleviate these feelings as soon as possible by carefully instructing students about back-up files and cautioning them always to save their files before turning off the machines. Although there were some lost files in the first few days, the files at that point were small and easily recreated. And students learned quickly both from their own mistakes and the mistakes of others. Thus, in general motivation and interest remained high.

HOW MUCH TO TEACH

In order to teach students to use word processing as a tool for writing, rather than teaching word processing *per se*, I presented only certain commands to the students. The first day of class I presented the basics of microcomputer use in general — identification, location and use of the disk, disk drive, keyboard, printer, and the on-off switch of the Apple IIe. I also identified and explained the data-line of the Applewriter II program and gave students a handout listing the basic Applewriter II commands (to load a file, to save a file, to clear the screen) and instructions in loading the program, moving the cursor, and creating a file. On the second day, as I gave them instructions, students created their first text, and practiced adding, moving, and deleting text, and

printing a hard copy. Although I told students that additional commands could be learned by reading the Applewriter manual and that manuals could be checked out from me, not one student ever requested a manual. Thus, the students, too, seemed to find these few commands sufficient to create, revise, and print a text.

The object of presenting only these limited commands was to focus on teaching the students writing skills rather than word processing skills. To this end, only approximately two hours of class time were devoted to word processing instruction. The rest of the class time was devoted to discussing writing problems and principles, to creating text on the machines, to revising texts on the machines, or to peer editing of hard copy.

Because I intentionally limited the use of the Applewriter program, I can only evaluate its usefulness for my particular purposes. As a labor-saving device for students generally unfamiliar with microcomputers, the Applewriter II program was very satisfactory. The commands that I presented to the students seemed to be easily learned. The command for loading a program, for example, is to depress the control key and the L key. Thus the command itself has a simple memory device built into it — control L for load. Although this did not hold true for all commands, it was true for the three most important commands that I presented: control L for load, control S for save, and control P for print.

The printing procedure on the Applewriter was also simple to use and easy to alter. Once the document to be printed was loaded and on the screen, depressing the control key and the P key began the process. When students followed this command with depressing the shift key and the question mark, the print menu appeared on the screen. Students could then opt for double spaced text by typing LI1, for line interval of one. (The default command produced single spaced text.) Other printing options could be just as easily altered. Once the students finished selecting printing options, they began the actual printing by typing NP. Moreover, students could easily move from printing to editing text. Once the document had finished printing, the student could immediately begin editing the document, for it was already loaded and on the screen.

The one drawback to the Applewriter II program that I encountered was the lack of correspondence between text format as it appeared on the screen and text format as it appeared when it was printed. Because the length of the line of text was not consistent between screen and printer, paragraphs did not appear the same in print as on screen. Although this problem may be solvable

within the system itself, neither I, my colleague, nor any of the department secretaries have yet discovered it. It is a problem that students also experienced, as some of their comments show (see below).

RESULTS

Although my students achieved only limited word processing knowledge, they did become familiar with a limited version of a very popular word processing program sufficient to create, revise, edit and print text. They also gained knowledge of and experience in using the computer as a tool for creating text. They discovered various assets and liabilities of using such machinery and they may even have discovered new horizons of their writing capabilities. Much of what they discovered was revealed in their responses to this question presented at the end of the course: "Has a word processor helped you to evaluate your own writing more effectively? If it has, how has it helped?"

Twenty-three out of twenty-five students responded that it had indeed helped. Several commented simply on the ease of making corrections:

"It's easier to correct any problems."

"Hav[ing] the word processor has made me want to edit more — it isn't as much of a chore just because it is so much neater."

Others noted that the *ease* of corrections led them to more extensive revisions:

"After writing on the computer, I can simply print out my document and revise that. The[n] edit the document on the screen. Then continue writing, then do this over and over. (It's much more fun too!)"

"Since it is easier to edit, you are able to play around with different ideas and really look at your writing."

Some noted the ability to see the text printed as a boon to experimentation:

"Because I can see it on a screen, which makes my mistakes more noticeable. Plus I can work on the structure of the paper more easier [sic]."

"It helped by letting me see clearly (not through a bunch of messy papers) what worked and what didn't. It also helped by allowing me to move words, sentences and paragraphs around to see which arrangement worked best."

A few complained about the inability to see *accurately:*

"I do wish that you could see exactly how the essay is set up instead of waiting till it's printed out."

"[The] main drawback is the fact that one cannot see the whole paragraph at once." (See my concluding remarks.)

The following comments, however, seem best to articulate the students' general attitude about using word processors:

"I have become more objective about my writing."

"Because it is so easy to change words, paragraphs, etc., I found myself more willing to more closely scrutinize my essays and change them if needed."

"It makes it much easier to admit you don't like something in your paper because it's so easy to fix on the word processor."

"I feel it has helped me to see how I group ideas together, and this allowed me to structure my writing."

With the exceptions of the comments on the lack of correspondence between screen and print out, these comments could apply to any word processing program. Throughout all the comments, the recurrent theme is revision and editing. Students in this class did revise more extensively than students in a class using conventional paper and pen. They were more willing to try various arrangements, to restructure sentences, and to add or delete material. Since the enhancement of revision skills was one of my goals for the class, I feel teaching the course using microcomputers was a success, and I feel that Applewriter II was a good software program for my purposes.

Teaching this class this semester has confirmed my intuition — word processing does encourage extensive editing and revision. Recent research has shown that the art of revision is a distinguishing factor between experienced and non-experienced writers. In order to help students' writing become better, we must emphasize the revision process. Thus, the use of word processing systems in composition courses should be continued and encouraged.

RECOMMENDATIONS

Choosing a software system was not difficult for me because Applewriter II was the system that had been purchased. Students need to be able to create, delete, add, and move text with ease. Any program which allows these functions will work.

To make the teacher's job easier, select a system with which the teacher is familiar. Thus, when students have problems with the word processing system, the instructor probably won't have to

waste time searching the manual for the solution to the problem. If possible, use a system with which other instructors are also familiar. You can learn a great deal about a system or a problem in just a fifteen-minute discussion with someone who uses the same system. In fact, having a resource person is often more helpful than even a well-written manual.

To make the students' task easier, select a word processing system with the following criteria in mind:

SIMPLICITY
- — the simpler the commands, the better (thus, one keystroke commands are preferable to two keystroke commands)
- — main commands should be easily reached when the fingers are in the "at-rest" position on the keyboard

EASE OF USE
- — help screen either displayed or readily accessible
- — manual directions written clearly and concisely
- — text printed just as it appears on the screen

AVAILABILITY
- — students can have access to this program even after the class is finished.

My main point is to select a program that can be used *as a tool* to facilitate increased writing skill. Additional tools such as handouts or posters outlining the major commands will also be helpful. By using word processing software and computers, we can indeed improve students' writing by enhancing their revision techniques.

Composition by Word Processing: A Community College Program

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It is, in many ways, fortunate to be just entering the profession of teaching composition, entering at a time when the question of why Johnnie can't write is being overshadowed by a renewed search for the best methods to teach him how. As a beginning teacher of college composition, aware of current research, I've sought inno-

vative means of producing this elusive, intangible goal of excellence in the writing classroom.

Word processing is one of the new technologies which is certain to have a major impact on how we approach the teaching of writing as it becomes more prevalent in general use. As a competent and very satisfied practitioner, I've been convinced for some time that word processing could be an excellent tool for teaching writing. Unexpectedly, I got the opportunity to test my theory in practice, last Fall, as a teaching assistant for "English 101, Composition by Word Processing" at John A. Logan Community College in Carterville, Illinois.

The instructor for the course, English department coordinator Denny Freese, had taught a similar section the previous semester. I had contacted him for information about this class, but when he found out that I had taught composition, and with his mind on the logistics of shuffling twenty-three students around a lab with nine terminals, he asked me if I would be interested in a teaching internship for the semester.

The physical setup for this course was not ideal. In a small lab with a 23-to-9 student/terminal ratio, some of the problems were obvious at the outset. In effect, we would have two different classes being taught simultaneously in this small room. While one of us, generally my colleague, led the discussion on composition, the other would "rove" to aid the students on the terminals, TRS80 Model III microcomputers. It didn't help that few of the students had any computer experience, nor, in several cases, any typing experience.

The class met three days a week for one hour per session, and the first few meetings were devoted to familiarizing the students with the basic commands they would need to begin entering text. Being fairly proficient with WordStar, a relatively complex and very versatile word processing program, I, at first, found a great deal of fault with the TRS "Scripsit" word processing system we used. For one thing, the Model III's have only 48K of random access memory, and being used to the speed and versatility of Wordstar, which requires 64K of RAM and a faster operating system, I felt that Scripsit was severely limited. After I became more comfortable with the TRS system, though, I decided that it was adequate for our purposes and that my initial dislike was due more to cybernetic snobbery than to a program deficiency. At any rate, I was able to cloak most of my ignorance of the Scripsit program behind the fact that I have other word processing experience and had sense enough to keep the reference manual handy.

With the limited number of terminals available, the students were taking longer to become comfortable with the mechanics of word processing functions than we would have preferred. In truth, I can't really say that any of them actually mastered the program by the end of the term; even though it is not one of the more difficult systems to learn, it is, nevertheless, a bit challenging. As a result, I taught very little writing in the first five or six weeks; I mainly taught word processing. At about that time, there seemed to be a rather marked turnaround: I was called on less frequently because someone accidentally pressed the wrong key and had arcane symbols flashing on the screen, and I was needed more often because of a writing problem.

Even at that point, though, a number of the students were still a little nervous to have someone looking over their shoulders while they composed or revised. It helped to explain that communication is the essence of expository writing and to make them more comfortable with the idea of audience. Gradually, they seemed to become accustomed to writing in this less-than-private setting and eventually started working together, asking each other questions if both instructors were otherwise occupied. It seems that the physical nature of the exposed monitor, of the act of word processing and composing in the open, reinforces in the user the concept of writing as communication, not just as individual expression. The students can develop a real sense of audience when they interact with a real audience.

This interaction, as well as continuous feedback while composing, are two aspects of word processing which make it such a valuable tool in teaching the writing process. And since it is a process, a step-by-step, logical progression, the nature of word processing helps to develop good writing habits in the user.

Other particular ways word processing can aid the composition teacher include teaching effective invention strategies and teaching the importance of revision. Although time constraints precluded extensive use of the word processors for prewriting in this particular class (the students wanted to get on the terminal, type their prose, and relinquish the machine to someone who was waiting), the device has excellent possibilities. Almost any effective prewriting or invention strategy is easily facilitated on the word processor. In my own writing, I've found it an invaluable tool for turning lists into outlines, and revising rambling, unstructured prose into clear text.

The word processor can be an ideal medium for having students do shotgun freewrites, or even what Sheridan Blau in the October

1983 edition of *College Composition and Communication* calls "invisible writing." Inspired by James Britton's experiment of writing without scanning back, Blau had members of a graduate seminar he taught use the technique of writing with an inkless ball point pen on a piece of paper with a carbon behind to record on a second sheet. Although Britton used this technique with three colleagues, and all felt it hindered their logical development and caused "syntactical discontinuities," Blau obtained more favorable results. He concluded that writing invisibly, and not being hindered by the act of rescanning, "... may make the act of writing more nearly that of pure thinking."

Word processing can make invisible writing easier yet. Darken the monitor screen completely, and write without stopping to correct punctuation, spelling, or grammar, and without having the distraction of the printed words. Let the ideas flow. Make a mess, and then clean it up.

Since the course was taught in such an unstructured setting as the lab, the students seemed to enjoy the relaxed atmosphere; this helped them to develop a healthier, less possessive attitude about writing. And occasionally, either because of student error or mechanical malfunction, some text would be lost or destroyed. Although annoying, this was no major disaster. Students had quickly gotten used to the idea of unlimited rewrites, so there was always a paper copy of the information stored on the diskettes. Since the themes were rather short, two or three pages, retyping amounted to little more than another effort at revising. When text was lost, which rarely happened, it was a good opportunity to make a point about the ephemeral nature of a draft: "The essay is never really lost; you created it, and can re-create it — probably with better results this time around." After all, words aren't etched in granite.

Another good feature to the arrangement, from an instructor's point of view, was the mobility it allowed. Most of the teaching was one-on-one. When I would see students getting bogged down, it was easy to talk with them about the problem they were encountering and encourage them to make the needed changes. As a method of teaching writing, I find tutoring much more effective than lecture/discussion. Even when we try to direct improvement through our comments on papers when grading, we can't be certain that the ideas are getting across, unless there is feedback from the students. The computer lab setting affords this luxury.

The greatest advantages of word processing in the writing classroom, and the major weaknesses of the Scripsit program, came to light near the end of the semester when we started to work on the

research paper. The paper itself was required to be rather short, approximately six pages of text, and was designed mainly to give supervised experience. What makes word processing valuable in writing of this nature is the ease with which major changes can be made.

Although word processing programs vary, most systems share some of the basic advantages. Blocks of text can be moved from place to place; sections can readily be expanded or deleted; mechanically, typing is quicker and less arduous than writing with pen and paper; there is no need to retype a whole paper if there are major changes in the introduction or first section; there is no need to cut and splice to re-arrange organization; there is no writer's cramp from trying to squeeze words into the margins or between existing lines of text; if footnotes are discovered to be incorrectly numbered, there is no need to go back and retype each number — they can be renumbered automatically with many programs; and, if, after the paper is proofread, a consistent spelling error is discovered, it can quickly be corrected throughout the paper with a "find and replace" command.

It is also helpful to be able to exit from the program and let the work sit for a day or two, then to return to it with a fresh start, additional information, new ideas, and perhaps a different approach. Regardless of the medium, in composition a major writer's block sometimes occurs in getting started on a piece, but often worse is getting restarted after stopping. Hemingway, it has been said, would overcome the problem of getting restarted by revising everything he had written the day before. I can only imagine how the ease of doing this on a word processor might have affected his writing. I know it has done wonders with my own and with my students' — even though none of us is a Hemingway.

Because revision is so readily accommodated through word processing, and because the students were allowed to do as many revisions as they pleased, often some of them would keep rewriting a paper until it was not just satisfactory, but excellent.

Using microcomputers instead of less versatile dedicated word processors also has what could be a distinctive advantage in teaching writing. There are scores of computer-assisted instruction programs which have been developed for use on various brands of micros. These range from simple drill and practice programs, of questionable merit for other than basic writers, to some very sophisticated works. Those with which I am familiar, and which were available to us, were developed to run on Apple computers, so we were unable to try them on the TRS systems.

The research papers, being longer and much more complicated to format than the short themes, renewed my displeasure with the Scripsit word processing program. Although it worked fairly well for the short, simple themes, the system was very cumbersome with the longer work. The most maddening problem it posed was in formatting long quotes where it is necessary to change from double spaced lines to single spaced. The commands get a bit unwieldy in the more complex format of a research paper, and the problems are compounded when the paper's format requires footnotes at the bottom of the page rather than endnotes on a separate page.

With many of the Scripsit functions there is more than one way for the user to accomplish what he is trying to do; this can further confuse the novice. If I seem to be unduly critical of the Scripsit system, I am also duty-bound to point out that TRS has a revised program called Superscripsit and has also recently introduced the TRS 80 Model IV's with 64K of RAM. But I haven't had the opportunity to use them. I don't have extensive experience with a large number of word processing programs, but having used Applewriter I and Applewriter II, I don't see the Scripsit system as the only one with drawbacks for a word processing course.

Another problem we continually encountered was equipment "down time." The lab had been established two years earlier on a CETA grant and had served more than 30 sections of various business, secretarial, composition, and continuing education courses. After such extensive use there are bound to be some failures. There were no problems with the monitors or the computers themselves, neither of which have many moving parts. The weak links in any computer system are mechanical: the disk drives and printers. The components with the most moving parts are the most likely to go awry under so much use, and they often did. Throughout the term, one of the two printers was generally inoperable; most of the time at least one of the terminals was out as well, owing to a malfunctioning disk drive. The Radio Shack representatives (makers of the TRS computers) were quick to answer distress calls, and their equipment probably is no less efficient than other brands, but this is little consolation to the student whose paper is overdue because one of the printers is producing what appears to be Chinese characters instead of English prose.

At the end of the semester, the students were all given a questionnaire and asked to comment critically on the nature and effectiveness of the course. One of the questions asked if they would recommend this course to others; I took a "no" answer to this question to mean they were unsatisfied with the course. Although

all but three were satisfied with the course, virtually everyone complained about the lack of available computer time. Most of the criticisms were, in one way or another, related to the time constraints.

Aside from their general disappointment at the lack of sufficient computer time, some of the specific or recurring unfavorable comments were from students who suggested that we have more discussion of composition, writing quality, and techniques; spend more time learning word processing functions and commands; develop a method of ensuring that everyone gets equal "hands on" time, rather than a "first come, first served" policy; skip the research paper; and get more terminals.

Some of the favorable comments and suggestions were that the course gives some background and experience in computer use, that it is more interesting than a regular writing course, and that it offers the opportunity to improve writing and grades through revision and rewrites.

Approximately one third of the students had enrolled for the course knowing that they would be using word processors; the rest signed up because this section fit into their schedules. All of the students were in a major leading to a baccalaureate degree, should they decide to transfer, but only one was in computer science. Few had any prior computer experience. Several could not type. The questionnaires revealed that these factors had little effect on the students' assessment of the course or their satisfaction or dissatisfaction with it. Although a number of the students indicated that at the outset they felt some apprehension about using computers, none reported being uncomfortable with them by the end of the term. Oddly enough, the only person who indicated on the questionnaire that she had "quite a bit" of computer experience was one of the three who said they would not recommend the course to others: she had hoped for greater emphasis on composition per se.

Two questions asked were: "What effect did using the word processor have on your ability to write?" (Choices: a. enhanced it; b. helped somewhat; c. had no effect; d. hindered it), and, "In the future, would you choose to write using a word processor, if available, rather than some other means?" (Choices: a. always; b. sometimes; c. not usually; d. never). To these questions no one answered that his or her ability to write was hindered by use of word processing, and only one said that she would never use word processing if she had the choice.

Although reactions to the course were understandably mixed, the predominant opinion of the students was that it was a worth-

while endeavor, and they were satisfied with the learning experience. Despite inadequate space, time, and equipment, my initial feeling that word processing can play a key role in the drive to attain excellence in the composition classroom was reinforced.

If I were asked to set up an ideal arrangement for teaching composition by the use of word processors, the first requirement would be a student/terminal ratio of one to one. It would also be better for the class to meet for two hours rather than one. That way there would be enough time to hold discussion or to lecture on writing and then turn the students loose on the machines to immediately put this information to use. It would be best too to spend the first few weeks getting the class familiar and comfortable with the word processing program, its functions and commands. I would also venture to find a more suitable word processing system: one which is versatile, yet not too complex. I think it would be advantageous as well to have typing ability as a prerequisite, but I would hate to see an enthusiastic student turned away from such a course solely because of a lack of typing experience.

In addition, more open lab hours are needed, even with the longer sessions. Finally, a more advanced writer can better appreciate and utilize the device of word processing than can a basic writer, so perhaps a full-year arrangement would be best—wherein a student would receive three hours of credit for writing and three hours for word processing. A writing course beyond the freshman level, such as journalism, creative, technical, or advanced expository writing, would be even more suited to the advantages of word processing.

Introducing word processing into the writing classroom is not a panacea nor will it produce immediate results of academic excellence. But word processing does make the act of writing, and therefore the art of teaching writing, much easier. What more could a composition instructor ask for than a device which encourages and enables students to keep revising their work, keep striving for excellence? It is exciting to consider how new technologies such as this will change our teaching methods in the very near future. In the hands of capable and knowledgeable professionals, word processing has incredible potential.

The Computer and Seventh Graders: An Anecdotal Report

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"Students, this is language arts class, and we are going to use the computer!" I used all the cliches: "Try it, you'll like it!" "Its bark is worse than its byte!" "The screen is just a piece of paper!" But it wasn't until the first day that we logged on that the fun began.

Yes, it was difficult to motivate 29 seventh-grade students at 29 terminals. I earned my keep that hour moving quickly from one to another, answering questions, pushing buttons, and soothing frustrations.

But the rewards were there too. First of all, I had prepared a program which asked a few questions of each student. The answers were easy, but they had to "type" on the keyboard and "enter" the information. They were working on the terminal.

I sat down at the terminal and introduced them to the telephone facility by calling one of the students a few terminal stations down the line. I gave the necessary instructions verbally first, and as the student was looking at the split screen display, I was able to "talk" to him on the screen as well. He discovered that this communication was fun. And then he asked the question that evaluated the success of the venture: How do I call someone else? This began a domino each-one-teach-one session. For a while the students were content with just a few commands, but within minutes they wanted to know more. I introduced them to the HELP facility. Unfortunately it was time to leave for the day, but I knew that there would be no trouble getting them to log on and telephone the following week.

During week two, I showed them the MAIL facility by sending them a message. When they logged on, the computer told them they had some mail. Using an overhead and prepared transparencies, I instructed them in the basics of MAIL. The mail message was one from me reviewing lesson one and expanding on the mail instructions. They were asked to FILE that message for future reference in another lesson.

My third task for seventh graders was for them to compose a paragraph on the terminal. We were studying paraphrasing, so this became an opportunity to put paper and pencil aside. I required that everyone "write" this assignment on the terminal. In

later assignments students were given the option of writing in either form. Most chose the terminal because of the editing capability and because the computer saved their work from loss. Besides, the computer printout was a pleasing product.

My students wrote their paragraphs and sent them to me in the mail. I read the paragraphs, made suggestions for revision right there on the screen, and returned the evaluated copy to the student. This required some computer time for me of course, but I have a terminal at school and at home, so the logistics were easy.

Of course, the next problem the students had was in revising their work. It was difficult to delete character by character. I introduced them to simple line editing. Then I showed them the editing software (EDTCAI) that is available to them on the terminal. About one-third of the students entered the instruction package during their own time.

The students were not aware at first that I was able to keep track of their activity on the terminal. I knew when and where they logged on, what software they were using if any, how long they spent per session, and which assigned lessons they had completed and with what accuracy. In addition, there were files of unexpected answers that I could access.

After a few weeks there became a standard procedure for the computer session. Students would log on and receive their instructions from me via a mail message (sent in a batch mail to the whole class). They would usually have at least one drill and practice exercise to complete for the day. They would have some short, but directed writing task. And finally they would have freedom at the terminal. This was done in forty-five minutes.

Many students used their free time to "talk" to one another on the phone. This conversing could be construed by some as wasting time, but I overheard enough comments about spelling and punctuation to believe that tahe peer corrections of terminal output were worth a lot of teaching time.

Other students were interested in the programming aspects of the drill and practice lessons. I showed them how they were put together. I used sentences that they had composed as data for identifying prepositional phrases for example. One student wanted to create a program of his own on baseball. He worked on the data file. And I adapted the drill and practice program for him. Another student wanted to know how I drew pictures on the screen (simple boxes, curves, and circles). I showed him how to access the graphics editor, and he spent hours drawing on Saturdays. There are games on our computer as well. My students enjoyed the board games as well as traditional backgammon, chess, and solitaire.

Above all the benefits of the computer experience is the importance of learning that the computer is a tool just as the pen is a tool. Students learned incidentally the importance of logic and order. Thinking skills were heightened because the terminal can be so immediate in response. My students were just beginning to enjoy the terminals when the term ended.

Note

The equipment referred to in this article is a cluster of four VAX 11780's. Students work from GIGI terminals or VT241 terminals. The facilities: MAIL, PHONE, HELP, and EDT are standard operations of the VAX.

Saving Student Publications: Apple Writer to the Rescue!

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BATAVIA HIGH SCHOOL

School newspapers and literary magazines encourage students to blend their writing and editing skills with their innate, and often untapped, creativity. Their publications are often especially lively because they are written for a real audience consisting of their fellow students, their parents, and their teachers. Unfortunately, budget cuts have reduced and even eliminated student publications at many schools. Fortunately, the computer and the photocopy machine can get the "presses" rolling again.

A newspaper or literary magazine must look special in order to be special, but typesetting at a professional printer is too expensive, and accurately typing material into justified columns is too time consuming. A computer word processing program offers a professional look in a short time with accuracy and low cost.

Apple Writer for use on Apple IIe's and IIc's is an exceptional word processing program for school use. The program is inexpensive to purchase and use because a single program can be used by several computers at one time whereas some other word processing programs can be used by only one computer at a time. Another advantage is that Apple Writer can be used with a single disk drive. Apple Writer is also easy to learn so that students, rather than teachers, can enter material.

TEACHING APPLE WRITER

Before teachers begin to use Apple Writer with a class, they must become thoroughly familiar with the program to be prepared for the barrage of initial student questions and problems.

In preparing both low and average ability students to produce a literary magazine and newspaper with Apple Writer, I follow a three-step process.

First, I introduce our school's Apple computers and the concept of word processing. Even those who have computers at home benefit from becoming familiar with the school's particular equipment. This introductory session emphasizes that students can save their writing on a data disk for easy revision and as a permanent record of their work.

Second, I load the program from the Apple Writer disk into each computer, give each student a data disk to use during the session, and begin hands-on instruction. To use Apple Writer, a student must know how to load a document from a disk, move the cursor, insert material, delete material, and save a document on a disk. Two or three teacher-made practice sheets make most students proficient at creating, editing, and saving documents. Of course, the program offers a variety of other functions which are useful but not essential for beginners.

Third, when students feel comfortable with the basic procedures, I load Apple Writer and distribute the data disks. Each student then enters his/her own contribution to the publication. By this time, the students work diligently and independently, so I circulate and help them polish their writing. At the end of writing sessions, it is essential that all of the work be saved. I assign the same file name such as "story one" to each student for saving material.

Initially, students prefer to work from hand-written copy, but soon they want to compose directly on the computer. The ease of word processing frees them from the drudgery of rewriting and encourages imaginative and lively writing.

TEACHER'S ROLE IN PRODUCTION

When students finish the writing and editing process, I prepare their copy for printing. This is also a three-step process.

First, to eliminate the need to handle many disks, I copy all the stories on a single data disk of my own. With Apple Writer, I load "story one" from each student's disk into the computer's memory. Once all have been loaded or the memory becomes full, I save the group of stories under a new file name such as "final

form." If a second group is needed, I use the name "final form 2" to prevent erasing the first group from the disk. I always make a backup copy of my data disk.

Second, I proofread the material and make any final corrections that may be needed.

Third, I print the material. Apple Writer print options include centering, left justification, right justification, and full justification within any margins selected by the user. The operator's guide to the printer will explain other options. For example, with the Apple Dot Matrix Printer, the size of the type can be pica, elite, bold, proportional, or condensed.

In preparing full-justified copy for a three column newspaper on 8½" × 11" paper, I use margins set at 10 and 43 and the command for condensed print (CONTROL + V, ESCAPE, Q, CONTROL + V). I have also learned that a fresh ribbon makes better reproductions.

STUDENT'S ROLE IN PRODUCTION

After the material is printed, students plan and eventually paste-up their publication. They should begin by measuring the length of each contribution and sketching its possible location on scratch paper. This is also the time to make headlines with transfer type letters if they are needed. Once the page plans are complete, students can carefully cut apart the individual contributions and attach them with rubber cement to light-weight cardboard.

These cardboard sheets can then be photocopied using white or colored paper. After the copied pages are collated and stapled, the student publication is distributed by the proud writers to their real audience of other students, parents, and teachers.

Once students learn the mechanics of creating publications with computers and photocopy machines, the publications benefit from timely production, attractive layouts, and improved writing. More importantly, by making student publications economical, the computer and photocopy machine save newspapers and literary magazines from budget cuts.

How to Stop Worrying and Learn to Love Word Processing

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Park Ridge

The bell clanged, the air conditioners sighed, the computer screens flickered greenly. Thirty freshman faces stared grimly or exultantly or suspiciously at the keyboards — and then at me.

I smiled weakly, gripped the lectern and tried to regain the jaunty air of technological savoir faire that had led me to schedule three classes into the computer lab for A WORD PROCESSING EXPERIENCE.

What if the system malfunctioned? What if all thirty clamored for help simultaneously? What if they were still typing this assignment when school closed for the summer?

Four class sessions later, with almost ninety typed final drafts under my arm, I emerged. Mission successful, teacher scarred but delighted. Yes, the system *had* crashed — but only once, and only during the second half of the final session of the last class. Even that class, whose work vanished into an electronic limbo, remained enthusiastic. Word processing, welcome to my composition curriculum!

What did these ninety accelerated freshmen at Maine East High School like about word processing? Here are typical remarks from their evaluations.

"I am ecstatic over the fact that I don't have to re-write draft after draft after draft. . . ."

"You can file it while you think about it and come back to it later."

"It printed out my copy at the touch of a button!"

"It was MAHHHVELOUS!"

"I think this word processor is one great invention."

"It does what you tell it to do — like it has a brain."

"You don't have to keep getting up to sharpen the word processor."

"I type faster than I write, so it gives me more thinking time."

"Word processor, 100%; pencil, 0%!"

"On Acewriter, I could try out different ideas without wasting paper."

The speed and ease of revising and correcting was their favorite feature, but the neatness of the final copy was the runner-up. "I

could make mistakes disappear without a remnant of erasing marks or wrinkles of liquid paper," one student noted. "The time saved writing it out can be used to improve the composition," another commented. "It was a lot easier to change phrases and add ideas." "No writer's cramps." Several thought that errors were easier to see, and I noticed that more of them were checking out suspect spellings. Eye-level copy was nicer to read, they decided. Comments like, "I could do anything I wanted with my composition," indicated a sense of control and freedom to re-arrange.

How had I designed the experience to guarantee success?

First, I made sure I was comfortable with the software, Acewriter, a word processing program developed for the Franklin Ace computer. Straightening out beginners requires the ability to figure out almost instantaneously what they did to produce whatever they have on the screen. If possible, I advise that you borrow a non-computerized adult to use as a guinea pig. Adults can be counted on to make more bizarre errors when executing instructions than the usual student, so they are invaluable as teacher-training subjects.

Secondly, I chose an activity that was short enough to minimize the typing problem and one that required revision to show off the word processor's strengths in that area. Students had composed introductory and concluding paragraphs for three of their earlier single-paragraph compositions. I asked them to type the six paragraphs (thirty sentences maximum) using the word processor and print hard copies. I then noted errors and suggested improvements on their printed copies. We would return to the lab, call up their original versions, correct and revise them. On their evaluations, only eight of the ninety students indicated that typing skill had been a problem, even though half rated themselves as only fair typists (20-40 wpm). Half the students said they had almost no typing experience.

Third, I prepared a reference packet on Acewriter that included an overview of the program, step-by-step directions for each major task like retrieving a file or printing a file, and a one-page quick reference list of the basic commands.

How did I structure the four class sessions? Here's an overview: one day to learn the program, two days to type and print, one day to revise.

Day 1 — Introduce Acewriter

My introductory remarks, very brief, compared a word processor to a "magic" typewriter, exhorted them to resist the urge to ex-

periment until we had completed the assignment for the day, and assured them that the computers and program were relatively sturdy. The following five tasks filled the remaining thirty-five minutes.

Task 1: Retrieve a file from memory. The program was ready to run when students sat down at the machines, so they had a relatively simple time following directions to bring up a copy of a short, amusing list of classroom rules. (sample at end of article)

Task 2: Practice moving the cursor around the screen. That tiny, blinking rectangle of light is where something happens on the screen, so students must feel comfortable moving it. Left, right, one letter at a time, line end to line end, up, down, one row up, one row down, top of file, bottom of file — mastering this one skill released a lot of their anxiety.

Task 3: Practice the basic editing moves one at a time. Students need to be able to *delete* single characters and lines; *add* spaces, characters, and lines; *move* words and lines. All these are fairly generic features in any word processing program. The ability to recall lines that had disappeared and to center titles with a single command evoked the most wonder.

Because this is the heart of the lesson, the pace should be calm and slow. If students are non-typists, as many of mine were, they need clear directions and plenty of time to locate keys, i.e. "Find the brown key in the left corner that has CTRL written on it. That's the control key." Nothing chills beginners faster than too much information rattled at them.

Task 4: Print out hard copy (on paper). Students quickly picked up computer terminology once they heard it paired with its definition, i.e. "Now that the soft copy — what you see on your screen — is the way you want it, here's how to get a hardcopy version on paper." After one class, even students who had never used a computer before were casually referring to "word wrap," "scrolling," and "justification."

Task 5: Experiment with composing on the computer. I gave them an easy topic: "If we had no school tomorrow, I would . . ." Keep typing in one endless line, I advised them, and watch the computer create lines. Use the return key ONLY if you want a new paragraph. We had just a few minutes left for this, but trying it gave the class confidence about the following day's assignment.

Day 2 — Entering Paragraphs

Now the test. How much of their compositions could they type

in one class? How many editing catastrophes would occur? Students arrived and began to work before the bell rang, an optimistic sign. During the class, successful editing moves elicited subdued squeals of delight.

"Hey, it worked — the line moved!"

"I centered it!"

Requests for my help were steady but never reached crisis proportions. Most problems just required repeating directions and fighting the tendency to handle the keyboard for them. An eight-minute warning before the end of class helped alleviate a crush on saving files.

Day 3 — More Typing

Success! Everyone's file was intact. Typing continued, and with only four printers available, a certain amount of amiable juggling occurred. One plus: Students took over the job of guiding others through the steps of printing.

Stage 1 was complete. Was I pleased? Ask me after I finish reading and reviewing ninety typed papers.

Day 4 — Revising

About a week after our initial three-day visit, we returned for one revision session. Students who did not complete their revisions would have to visit the lab during a study hall or a free period to meet the deadline four days ahead.

Students who finished early switched to my review program on characters from myth. I had learned at the end of Day 3 that I needed back-up assignments on the computer for the early finishers.

Eighty-five of the ninety students wanted to use Acewriter again. In fact, many students went to the lab on their own the following week to type scripts for their skits on Greek heroes. Groups agreed on code names for their files so that members could access the files throughout the day to expand and modify the script. Sets of printed scripts fluttered around the room, shaming those mere hand-scribbled ones.

But how about those introductory and concluding paragraphs? Had word processing made a difference? The compositions were certainly sharp-looking and more nearly error-free than usual.

So maybe Acewriter didn't turn them into better writers overnight. I'm working on that, but I'll settle for the next best thing: freshmen who exclaimed, "Hey, this is fun," who wondered if I didn't agree that they should add a sentence right in here "to, like, explain this part better," and who thought that since it was

no big deal to change it, maybe they should "stick in a better verb." Yes, I can live with that, even if the system does crash once in a while.

WORD PROCESSING PROJECT

This text is found under the file name FILE, FILE
Make the corrections at the bottom of the page.

---

class rules

1. Teachurs are always right
2. Tooo many tardies are bad
3. Buyyour teacher a gift
4. Teachers are nice and eat raw eggs
5. Students and teachers are great

Buy large gift for teacher

Corrections:

1. Capitalize the heading called class rules and center it above the text. Place cursor over c in class and type over, then hit CTRL J for justification mode and then hit c for center. Then return.
2. Position cursor on u in teachers and type over with correct letter e.
3. Position cursor over the extra o in first word and hit space bar to remove
4. Place cursor over letter y and hit CTRL F to separate or add space
5. Position to space after word nice and hit CTRL L
6. Position cursor on S in students and strike CTRL D several times until teachers is the first word. Then Capitalize teachers.
7. Cursor on B then CTRL F to get some spaces in so that the number 6. can be added.
8. Put three more blank lines after centered title. CTRL V
9. Single space rules. CTRL K
10. Make rule #1 move to rule #6 by CTRL K to kill, then move cursor and recover with a CTRL R
11. Students hooked to printer will now print a hard copy.

Plunging Into Word Processing: A Community College Teacher's Experience

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Illinois Central College
Peoria

During this past fall when I was hired to write a proposal for the National Institute of Education, I found myself taking a crash course on word processing. I had 2½ weeks to complete what was expected to be a sixty-page, single-spaced missive, and I had not even begun to collect the background information which was to be comprised of data gathered from six states concerning recent "Excellence in Education" legislation. It was apparent that the only way I could meet the deadline was to use a word processing program. Such a program would permit me to insert information quickly and easily into my text as I received it. It would also mean that the secretary would not have to retype the entire manuscript but only make a few corrections and set up the format for printing the final copy.

I had never used a word processing program before but, after a three-hour session with one of the secretaries, I had acquired all of the skills I would need to write a rough draft with the IBM Wordstar program. For the next couple of weeks I inserted, deleted and switched paragraphs around. Two hours before deadline, I mailed the completed manuscript from the post office.

The significance of the word processor hit me full force. Executives in the work place could cut the amount of time they spend on paper work in half and students could facilitate the writing of their papers with it. I was already aware of the research by Burns (1979), Collier (1982), and Beach and Bridwell (1984) that seemed to indicate that word processors provide positive aids to students' writing tasks. And what research had not yet had time to prove definitively, opinion had. Two teachers at an elite private high school in Atlanta, Georgia, had assured me that those students who used word processing program to write their papers invariably seemed to receive better grades than those who did not.

It seemed to me that perhaps one of the most important skills which I could teach my freshmen at Illinois Central (I.C.C.) would be that of using a word processor. If I could learn to use one in three hours, my students should not take much longer to learn. And

so I developed a series of lessons, totalling six hours, devoted to teaching the use of word processing programs for composing. My objective was to teach students to use word processing in the same way I had used it — for drafting and revision purposes.

To achieve this, students need only to use the word processor to engage in four linguistic functions of revision: (1) addition, (2) deletion, (3) substitution and (4) reordering. Once they have learned the skills to carry out these four functions, they have mastered all the basic word processing skills they need. The other skills are mainly related to format and students can learn these as their needs and desires dictate. Thus, the course was divided into three parts:

(1) Introduction to the minicomputer.
(2) Major functions: adding, deleting, substituting and reordering.
(3) Ancillary functions: printing and formatting.

I.C.C. has a Microcomputer Lab with sixteen Apple II's and a single Apple Write word processing program. My biggest worry was over those students who couldn't type. But two of my colleagues who were already using microcomputers advised, "Jump in. It's a case of sink or type and they won't sink." So I jumped and they typed. Some seemed like professionals, others plodded along with the hunt-and-peck method, but none seemed to find the task overwhelming.

Part of the reason that they were able to take it in stride and not acquire an acute case of computer anxiety may have been the time during the semester when I introduced the segment and the atmosphere in which it was introduced and conducted. I began the segment in midsemester. By that time the students were becoming used to me and they had already written a few papers. The segment was introduced as an experiment on which they would not be graded. They also understood that the use of the word processor to type the remainder of their papers was optional.

Furthermore, remembering my own traumatic experiences in learning to program when I remained perpetually three steps behind the instructor, I paced the class to the slowest student. Only when everyone had successfully completed a sequence did I go on to the next one. In addition, my instructions were extremely detailed and geared to first-time users. I still shudder when I think of that first class I took; the instructor was already proceeding well into the first sequence while I was still trying to locate the "on" button. I began my own class with instructions on how to turn on the machine.

I planned the first lesson to be very low-key in an effort to reduce students' anxiety levels. The session was designed to allow students to become familiar with the computer and the word processing program, to try it out, and to find out it wouldn't "byte." Students began by "booting" the Apple Write program and initializing their own diskettes. They were asked to purchase two diskettes so that there would always be a relatively current draft of their text, in case one diskette got wiped out while they were working on it. Once students had accomplished the first two steps, they could begin to draft their text, passing the Apple Write program diskette to the student at the next computer. The assignment was a simple one so that they would have no difficulty being fluent and could concentrate on the computer rather than on their text. They were simply asked to write a social letter.

After they had all written approximately two paragraphs, they stopped writing, and the class was given its first set of instructions for carrying out the revision functions by adding and deleting letters and words. They then returned to their text to practice using these two skills.

The final skills they learned during this first lesson were for saving and printing their text.

During the second lesson, students reviewed the skills they had acquired so far and learned to load into the computer the text they had written previously. During this session the revision skills were expanded. Students learned to insert or delete whole sentences and paragraphs and to substitute and reorder words, sentences, and paragraphs.

The third session was devoted to one final revision skill — locating a word in order to check spelling or to substitute one word with a different word. Students also learned to clear the screen, obtain help from the computer program, locate their own catalog of programs, locate the Apple Write catalog, and correct paragraphing.

The final three lessons were devoted to the format, to acquiring skills in locating menus, catalogs and assistance from the Apple Write program, and to such niceties as split-screen displays and a peek at another file.

At the conclusion of the six hours, students were sufficiently acquainted with the word processor to use it on their own. An evaluation of the class indicated that eighty-five percent of the students planned to use a word processing program for writing future papers if they could obtain access to one. Over three-quarters of the students believed learning to use the word processor was helpful

ar[illegible] recommended that it be taught to all English composition stu-
den[illegible]

T[illegible]ope and sequence for this word processing segment were
designe[illegible]ecifically around composition students' needs and could
be adapte[illegible] grade levels 4-13. While schools and colleges use a
wide variety of computers and word processing programs, the
skills which these students learned are generic and applicable to
any computer or word processor. Rather than reading a manual
and acquiring skills which might never be used, students learned
only those skills which they really needed for composing.

Lesson 1

1. Familiarization with the minicomputer — how to turn it on; the purpose of the return or enter key; the purpose of the various function keys, such as the delete key, the arrows, the cursor, etc.
2. Booting the word processing program
3. Initializing the diskette
4. Typing on the minicomputer
5. Inserting and deleting letters and words
6. Saving the program
7. Printing the program

Lesson 2

1. Review of Lesson 1
2. Loading a program
3. Inserting and deleting sentences or paragraphs
4. Replacing words or sentences
5. Moving words, sentences or paragraphs around

Lesson 3

1. Finding a word or sentence
2. Finding and changing a word
3. Additional commands to:
   a. Clear the screen
   b. Locate the catalog on the word processing program
   c. Locate the text catalog
   d. Begin a new file
   e. Locate the main menu for help on the word processor
   f. Move to the beginning or end of the text

Lesson 4

Formatting

a. Locating the print menu
b. Printing double space
c. Underlining
d. Locating the margin indicator
e. Correcting paragraphing
f. Checking the text before printing it

Lesson 5

Additional commands to

a. Delete a file
b. Rename a file
c. Get help from the program
d. Check paragraphing

Lesson 6

e. Peek at another file
f. Split the screen to see two texts at one time

A High School Classroom and One Computer: Relief From Those Drill and Practice Tasks!

PHYLLIS MABRY
EISENHOWER HIGH SCHOOL
DECATUR

English teachers themselves are often the last strong fortress against the use of computers in their classrooms. Until three years ago, I would have qualified for the rank of colonel against such a siege. My attitude changed when my five-year-old grandson began to talk to me in a jargon I couldn't understand. How could I explain to him that his grandmother, the English teacher, could not communicate with him in what he considered to be plain English? My ego demanded that I enroll in a computer programming course for beginners. Upon its completion however, I decided to let *other* people prepare materials; I would be satisfied with being a "friendly user."

When the principal at Eisenhower High School provided me with a computer for my classroom, I was confronted with problems. What could I do with only one computer when I had hourly classes of twenty-seven students? How could I justify its sitting there? I decided to use programs already purchased for the school district and found there was actually a wealth of materials and manuals available to relieve me from time-consuming drill and practice tasks. All I had to do was to clarify my objectives and decide how to manage the students. I wanted my goals to be realistic, educationally sound, and easy to evaluate subjectively. I focused on the following objectives: (1) to motivate, (2) to teach, (3) to reinforce, and (4) to explore new concepts.

1. MOTIVATION:

Having acquired some knowledge of human nature over the years, I knew that students are turned on to things they can't have. I then concluded that one computer wasn't such a bad idea since each student would get to use it only about thirty minutes per month or every six weeks, depending on the size of each class. This very inaccessibility to the machine could hold their interest all semester. Using monthly calendars, I wrote in the names of two students for each date that school was in session. I did this for all five of my classes. I posted the first month's schedules on the bulletin board near the computer. The next day I gave explanations as to what we were going to be doing with the computer. Each student would get thirty minutes class time for use on the computer, and three rules would be in effect. Rule 1: It was up to each of them to check the calendar for his/her name. Rule 2: Absenteeism would mean forfeiting computer time. Rule 3: Computer time wouldn't excuse anyone from the classroom assignment; it would only give extra time to complete it.

Students took the long route around the room that day in order to check for their names. This was my strategy because I wanted the students to take the initiative. I knew that if they were curious, they were going to be motivated, and indeed they were.

2. TEACHING:

The academic levels of the students in my five classes ranged from remedial reading to college prep. For the remedial I knew I must use programs which would reinforce, and for the college prep I needed the programs to be challenging. Because all of the classes were studying grammar at this time, I chose programs which cor-

responded to the curriculum. These ranged from basic English grammar to preparation for ACT tests. Since most computer programs give a percentage score at the completion of a segment, and since I wanted students to record their own scores, I made charts for each class so that students could record their scores. These proved to be excellent motivators because students began to compete with each other. Cheating on the recording of their own grades was at a minimum mainly because they knew that most programs were name coded and that I could check their accuracy at any time.

Students anxiously awaited their time at the computer, but were they really learning? This question kept going over in my mind. I concluded that since research keeps emphasizing "time on task" as one of the best ways to learn, each student was experiencing thirty minutes per month on a drill and practice task they otherwise would not do.

I also observed a two-way, one-on-one communication taking place between the remedial students and the computer. Fear of failing seemed to be eliminated. The computer provided the students needed structure and the immediate feedback. They usually experience very little success in school and very often refuse to do their work, but computers made a difference. They came to love the challenge and derive satisfaction from their computer time. I also noticed they were very seldom absent on their computer day, and many times students who had been ill would come in before or stay after school for make up. This was very unusual for these students.

As for the college prep students, I saw them being challenged with advanced grammar without any fear of embarrasssment or loss of prestige among their peers. These high-performance students were experiencing grammar challenges and were discovering that they were not yet masters of their language despite their proven capacity for creative and reflective thinking and problem-solving. They were sharpening their minds in the synthesizing and evaluation of the new data they were receiving. For each of these groups, the computer usage required their positive absorbing concentration; and therefore, I concluded they were being taught.

3. and 4. REINFORCEMENT AND NEW CONCEPTS:

The observations and the results of the first and second objectives answered my questions about the reinforcement value of the use of the computer for the students. They were all being reinforced in the drill and practice of the programs they were doing, but more than this, their own self concepts were being strengthened and

nourished by their own efforts with very little unrequested teacher input. This in itself was a new concept for many students.

The computer usage had shifted a portion of their education from almost absolute teacher-centered learning to student-centered learning and control. They were mastering new ideas through their own efforts with immediate feedback from a non-judgmental machine. Even those students who had, since kindergarten, been self-motivated and insatiable in their quest for knowledge discovered that the computer was challenging them in the field of language arts, and that it could help them raise their entrance achievement scores for college.

It has been three years since my first encounter with one computer in my classroom. In those three years I have continued to use grammar programs on all levels. I have also added vocabulary, spelling, speed reading, reading comprehension and word processing programs to its usage. I am looking forward to the day when I might have ten or twelve of these "black and green eyed things" staring at me from around the room. I have no fear of being replaced by them, in fact just the contrary, because I can envision the day when students will be experiencing what we in education have said all along they have needed — small group discussions and individualized instructions. With a fleet of computers, I could have within the same hour — small-group literary discussions, grammar practice, vocabulary building, and revisions — all with the use of word processors. And each student could be met on his or her own level of development. What exciting classrooms these would be!

Getting the Necessary Funds: A Sample Proposal to a School Board

Marti Swanson
Grant Community High School
Fox Lake

English teachers are all familiar with the task of creating something from nothing. We regularly assemble materials to make students interested readers; we devise assignments to inspire young people to write; we create and share and adapt. We English teachers at Grant Community High School have long wanted to create something from nothing in the department by working toward the use of microcomputers in our curriculum. We have the desire;

what we lack as a department are the computers themselves. To facilitate the realization of our dream, we worked on a proposal to submit to the superintendent and the school board requesting that they allocate funds for the purchase of microcomputers for the exclusive use of our department. (Class sets already purchased by the school service primarily business students and classes in math and science, with English teachers permitted to use the computer rooms on a time-available basis, subject to "bumping" at any time.)

Although we don't know at the time of the preparation of this article whether or not we have been successful in our request, it is our hope that *Bulletin* readers will find the following proposal useful in their own efforts to get started.

February 21, 1985

To: Superintendent and Board of Education

The English Department of Grant Community High School proposes that approximately $30,000 of the amnesty money be used to purchase microcomputers, peripherals, and software. Such equipment would be located in the English hall and would be used by both students and faculty. The following rationale will suggest potential uses by students and teachers; in addition, it will recommend equipment and estimate costs.

It must be remembered that for the English Department to prepare a rationale for computer usage is paradoxical, for it is difficult to evaluate the potential when the department has not had the opportunity to work with micros to any significant degree. On the other hand, members of the department are very interested in expanding their own computer literacy and capabilities for both their personal and professional use. The potential for better teaching and learning is tremendous.

STUDENT USAGE

Milton, dictating to his daughter, may have been using the first word processor. The most important reason for using micros in the English classroom is the contribution they, like Milton's daughter, can make to improving composition. Every case study of which we are aware has demonstrated that students using micros get more enjoyment from writing, produce better writing, and write more. " 'One of the best uses of computers for high school students would be to help teach kids to write,' says Henry Becker, director of an ongoing Johns Hopkins classroom-technology study."[1] Every step of the composition process can be done on micros: pre-writing,

drafts, revisions, editing, and publication. The last three steps are particularly enhanced by micro usage. Because the micros remove the onerous chore of recopying, students are much more apt to experiment with alternative wording, to re-order sentences or whole sections, and to fix up "small" errors in spelling, sentence structure, and mechanics. Those who have used micros for word processing "report major transformations of style, productivity, and process. Fluency grows, flexibility develops, and originality springs from its hiding places. Liberation from the fear of errors can set creative expression in action."[2]

The micro has another advantage: students with poor handwriting will no longer suffer because their writing is illegible; and, on the other hand, such students will no longer be able to excuse their poor spelling or mechanics by pleading that they can't help their handwriting.

Both newspaper and yearbook staffs could and should use micros for their work. Having correct copy on disk would also eliminate typographical errors by the printer.

Professionally-made remedial and drill-and-practice programs are already available in such areas as vocabulary, spelling, grammar, and mechanics. Such computer-aided instruction would enhance learning in these areas. Many professional programs allow individual teachers to tailor lessons to their own specifications as well.

The English and Math Departments already offer PCTP [Pre-College Test Preparation] to help students prepare for the ACT, PSAT, and SAT examinations. Computer exercises would provide students additional practice. Professionally-made tutorial programs which teach and give practice in concepts are also available. In addition, some department members have already created original programs for use by their own classes. All tutorial programs "branch" and vary their presentations based on student responses; such alternative presentations are thus appropriate for the individual student's level and ability.

One major advantage of all computer-aided instruction programs is the immediate feedback feature. In the classroom, a teacher can reinforce only one student's responses at a time; the micro, on the other hand, "speaks" to all students as they respond at their own pace. Too, encouragement is always built-in, something that doesn't always happen with all-too-human teachers.

Experience has shown that students will often redo an assignment just for the fun of it or to get a better score.

The role of the teacher would change somewhat in the micro classroom. Since some students are much more computer-literate

than teachers, there could be some role reversal in the classroom; in any event, teachers would become consultants rather than directors of the learning process. And the micro is the ultimate in patience; it never gets tired of telling the same student the same thing over and over and over . . . until he/she gets it right.

Since the English Department has contact with virtually every student at least once a day for four years, the regular use of micros in English classes would help make all our students effective users of personal computers. The need for this familiarity exists regardless of what happens at Grant Community High School. Seymour Papert, testifying before a Senate Subcommittee on Science and Technology, noted:

> [Personal] computers will integrate and supersede the functions of [home communication] technologies . . . independently of any decisions by the education community. The driving force lies in industry. This computer presence has a tremendous potential for . . . improvement of the process of learning.[3]

An additional consideration is that several universities now require students to have and use their own personal computers. And Henry Kisor, computer columnist for the Chicago *Sun-Times*, says:

> If word processors can help children write more, faster and better, you could say that computers, far from turning out a generation of illiterates, can give literacy a new lease on life. Children take to them like nails to a magnet, and word processing is just another aspect of the technology as comfortable to them as number crunching and Klingon zapping.[4]

FACULTY USAGE

The English Department is the largest department in the school, having a current total of twelve members. It is also one of the two major departments which have had little or no computer contact as yet. Locating a micro room in the English hall would provide computer accessibility to a major segment of the faculty and, since word processing would be available, would allow all faculty members the advantages of using micros for their production work.

The micro can be a teaching tool in the classroom as well. For instance, a teacher can demonstrate composition, revision, and sentence combining techniques directly in front of the students, allowing them to watch the entire process and its effects.

Computer storage would ease the revision burden by providing storage and easy revision capability. For instance, test materials

can be stored on disks, used, revised, and updated with ease whenever necessary or desirable.

Department chairs could store curriculum guides, course descriptions, inventories, text information, and book ordering programs on disks. Again, material so filed would be easy to modify without wasting chair or secretary time for recopying the whole when only part has changed.

Micros can also be utilized for keeping students' grades, averaging grades, and performing other record-keeping functions. Information so stored can be sorted in a variety of ways, again saving valuable time.

RECOMMENDATIONS

1. We recommend that the room currently used for health classes [the only non-English room in the English hall] become the microcomputer room for English classes, including those involving production.
2. We recommend the purchase of 24 Apple IIc micros at less than $900 each, 24 large monitor screens at $100 each, one Apple IIe at $1120 or an exterior disk drive — which would be cheaper but less desirable — for copying purposes, and two Imagewriter printers at $500 each. These prices are what we as individuals paid for our own home equipment; the school can undoubtedly get a discount for bulk purchase. Although Apple is the definite leader in micro sales,[5] we recommend it for two different reasons: Apple has consistently produced the best and the most educational software,[6] and the Appleworks word processing program is the most effective and easiest to use we have seen.
3. The room would need to be equipped with electrical outlets, surge protectors, tables, platforms for monitors, and chairs. Disk storage boxes should be supplied for each station, but these could easily be made from scrap plywood by woodshop students.
4. Provision should be made in the budget for software purchase. Initially, the Appleworks program is the only thing needed for word processing purposes; and that is our primary concern. We would, however, want to expand micro capabilities in the future by the addition of a spelling checker plus drill-and-practice and tutorial programs designed for non-composition classes. Appleworks can be purchased for $250, and the program can be copied; about $50 in blank disks would take care of our immediate needs. Students would supply their own data disks; one would easily take care of a whole semester's needs.
5. Room security is a cost factor unknown to us, but it will obviously have to be provided.

Notes

[1] "Education: The CRT Before the Horse," *Time* (October 10, 1983), p. 64.

[2] Jamieson McKenzie, "Accordion Writing — Expository Composition with the Word Processor," *English Journal* LXXIII, v (September, 1984), 56.

[3] Seymour Papert, *Computers and the Learning Society: Hearings Before the Subcommittee on Domestic and International Scientific Planning, Analysis and Cooperation of the Committee on Science and Technology*, Report No. 47 (Washington, D.C.: Superintendent of Documents, U.S. Government Printing Office, 1978); as quoted by Holly O'Donnell, "Computer Literacy, Part I: An Overview," *The Reading Teacher* (January, 1982), p. 490.

[4] Henry Kisor, "Word Processor: New Weapon in Education Revolution," Chicago *Sun-Times* (March 20, 1983) Living Section, p. 3.

[5] See Mark Lewyn, "Apple IIc Is Christmas Sales Champ," *USA Today* (January 23, 1985), p. 1; and David Greising, "Apple's Making Sauce of Rivals," Chicago *Sun-Times* (Jan. 11, 1985), pp. 75, 78.

[6] "[T]he Apple IIc is considered the surest bet when software firms consider which machines would comprise the largest market for their products." Greising, p. 78.

A Special Call for Manuscripts for Winter Issue

RACHEL B. FARIES
ALTON HIGH SCHOOL

Topic: **THE ENGLISH TEACHER'S OTHER DUTIES**
(Deadline: November 15, 1985)

What is your response when you are asked or required to assume duties other than your regular English teaching load? What kinds of "other duties" are you expected to perform? Do these tasks involve extra pay, released time, a contractual obligation, or are they gratis? In any case, what is the nature of these duties and how do they affect your teaching? The Winter 1986 issue of the *Illinois English Bulletin* will address this important topic.

From elementary school through the university, those of us who teach English indicate that an ever-increasing load of extra duties is sapping the energy and devouring the time necessary to meet the language and literature needs of students. In secondary school, for example, such activities are numerous: the yearbook, newspaper, literary magazine, school plays, assemblies, National Honor Society, writing and speech contests, home room, various commit-

tees, student government, letters of recommendation, curriculum development and textbook adoptions — an endless list!

Not only do we need to identify these duties but also to suggest ways to limit, manage or just cope wih such encroachments on teaching time. Many already overburdened English teachers ask: When do I have time to prepare for classes, assemble teaching materials, grade student papers, get updated on new literature and methods — or, simply, to refresh and energize myself?

The Publications Committee of the Illinois Association of Teachers of English invites you to help the profession by submitting an article on *some aspect* of this topic. Send manuscripts in duplicate to:

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Announcement of Student Poetry and Prose Judges for 1985/86

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